

Interview with Gerald Strang, led by Clare Rayner

Rayner: As I indicated to you, we're interested in the whole musical development here in Southern California from the 1930s on, but I am interested in everything you did within that context. That would involve a complete story by you rather than just when you related to Arnold Schoenberg.¹

Strang: Wherever you want to start, we can start in the middle and go on, or you can start in the beginning, whatever you feel like.

Rayner: Well, possibly, to give me a little more orientation, could we do a quick biographical run through from the beginning.

Strang: Okay. Do you want to do it in a question-and-answer format, or do you want me to start off with a monologue?

Rayner: I think that would be preferable. I want to say as little as possible because I'm interested in hearing you. I know you told me that you were born in Canada, but not of Canadian parentage.

¹ Arnold Schoenberg, or Schönberg, was an Austrian-born composer, music theorist, teacher, writer, and painter considered one of the most influential composers of the twentieth century.

Strang: No, my parents moved to Canada I think in 1905, if I'm not mistaken, or thereabouts. They simply went out in the middle of the prairies in Alberta and homesteaded there. At that time the native grass was a man high all over those prairies, and in order to get stock on their farms people rounded up wild horses. My mother, who was great with horses, used to pick out the wild horses and saddle them to a buckboard, then drive them out, breaking them on the way back to the ranch, that sort of thing. So, this was a pretty primitive batch of circumstances, and I was born after they'd been up there about two, three years. My father moved back to the United States three months after I was born. So, my total Canadian heritage is simply the coincidence that my parents were naturalized Canadian citizens. And my total Canadian experience consisted of just the first three months of my life. It becomes kind of ironic when I hear myself referred to as a Canadian. We then moved back to Montana, where my father was involved in farm real estate, and farm loan work. We lived in a few small villages in the prairies.

Later, on as my brother and I began to get into the age level where we had to go to school, we moved around various places. Neither of us went to school early on; my mother taught us to learn and to read until I started going to a school in the third grade. Then we lived somewhat peripatetically, including one season in Hollywood, and several years in Fort Benton and Great Falls, Montana. And we returned to California in 1919, I believe it was, when my father was assigned as a farm loan expert for one of the Middle Western life insurance companies based in Fresno [California]. We lived there throughout the period when I went

through junior high school and high school. After which I spent two years in St. Louis at the Principia Junior College, and then two years at Stanford [University], winding up with a BA with a major in Philosophy.²

Well, that takes me through my basic schooling. By that time I had decided that one of my main interests was composition. So, while I had no formal musical training in college, I simply took private lessons and, with this-and-that-and-the-other, my mother started me taking lessons in piano and violin when I was around five or six. And then later, I took some private instruction in pipe organ but none of any performance, since that wasn't of much interest to me—I was interested in making music in the creative sense rather than making music as a performer. As I went through school, I simply made a point of acquainting myself with as many aspects of music as possible. I wound up finally as a general utility man for the Stanford [University] Band, playing any instrument that was missing or any special instrument they needed. During my last year at Stanford I was playing five or six different instruments on assignment. But this was all the music training I had as an undergraduate.

Rayner: What was your actual emphasis then for the degree, both at the junior college and at Stanford?

² Founded by Mary Kimball Morgan, the Principia School was officially opened in 1898 in St. Louis. By 1906, *Principia* had graduated its first high *school* class and in 1912, the Junior College was added, becoming one of the first such *colleges* in America.

Strang: Well, I didn't really have a major, and I went to Stanford lacking any more definite idea of what I wanted to do, ending up as a philosophy major for my bachelor's degree. Along the way I incidentally took the equivalent of a major in foreign languages, but that didn't count as a formal major.

Rayner: What languages were they?

Strang: Mainly French, a little Russian, and Latin.

Rayner: Not German?

Strang: Not German—which was a problem later on, as it turned out. Anyway, that's sort of my education background up until 1928, at which point I finally decided that I didn't want to be a lawyer or anything of that sort. And in desperation, I decided to take a whack at more music study. So then I went to the University of California, Berkeley, for graduate study in music theory. Thinking that music theory was a kind of academic fugue, I registered for such things as fugue and simultaneously the beginning of advanced composition, and so I got by all right.

Rayner: Who were you studying with?

Strang: Well, they were just the regular staff there. The people's names I don't remember much now, however there was one summer when I worked with a composer named Charles Koechlin, who was then at the Paris Conservatory, studying counterpoint with him.³ But mainly I worked with the regular staff of the university, one of whom was Glen Haydon, who since became well known in musicological circles for his work with sixteenth-century counterpoint.

Rayner: Was Glen Haydon at the university in Berkeley at the time?⁴

Strang: No, he simply came over and lived in Berkeley, giving private classes in the studio of one of the piano teachers in Oakland, who had known him in Paris. And so he was not directly connected with the university. At that time, the university's Music Department was so small its program was limited, with a faculty of about only four or five, if I remember correctly. And whatever strength in musicology it had was certainly all developed later in this period. Remember, this was 1929, a

³ Charles Koechlin (1867—1950) had a strong impact on younger generations of French composers, including the group that was originally called "Les Six" by critic Henri Collet in 1920.

⁴ Glen Haydon (1896-1966) was instrumental in founding the Department of Music at the University of North Carolina at Chapel Hill and remained chair of the department until his death in 1966. He wrote *Introduction to Musicology* (1941), one of the first books on the subject written in English.

time when the Music Department occupied a ramshackle, wooden temporary building that it had inherited from the military training program, and an abandoned church. All the music facilities at the university were a bungalow and the relict church [laughs].

Anyway, that was a start in the way of music. In the fall of 1929 I decided to go to Europe and study with Schoenberg. At that time in the U.S. Arnold Schoenberg was a name more than anything else; none of his music was performed and practically none of it was available even for inspection. I got as far as England but soon received word that my father's eyesight was failing, and so instead of going on to Berlin and working with Schoenberg, I turned around to come back and go to work. So, I worked for two or three years in a mortgage business, until that evaporated with the Great Depression. And then I had four or five years in which I had no income at all, because jobs were simply not available during the early part of the depression.

Rayner: When did you go to London, and how long did you stay there?

Strang: I was there for three or four weeks and then I had to come around and never did get to the continent at that time. And so that was an abortive attempt to study with Schoenberg.

Rayner: Did you hear concerts in London? Did you see any of the music?

Strang: Nothing much, because this was the summer and nothing much was going on in London. So, actually, the experience of 1929 had no musical significance really. There was not too much opportunity for Americans even to study in Europe in those days. The only really well-established European study pattern in the field in which I was interested—primarily composition and that sort of thing—was the [Nadia] Boulanger cult, which had already started for people like [Aaron] Copland and Lou Harrison and the rest of them who had been going to Paris to study with Boulanger. A very few Americans—Adolph Weiss for example—also went to Berlin to study with Schoenberg.⁵ But insofar as there was any general tendency for Americans to study composition in Europe, the trend was all for going to Paris, and the paths to Paris always ended up with Boulanger. A whole group of Boulanger pupils, who had more money than most, subsequently representing the American composers of that period—[Aaron] Copland, [Lou] Harrison, [Henry] Cowell, John Alden Carpenter, and Randall Thompson and Virgil Thomson, and all of these people, you see went through the Boulanger school.⁶

⁵ Born in Los Angeles, Adolph Weiss (1892-1971) played bassoon in the New York Philharmonic; his music was influenced by studying with Schoenberg in Vienna in 1925.

⁶ Aaron Copland (1900-1990), often seen as the dean of American composers, served as composition teacher, writer and later as a conductor of his own and other American music. Henry Cowell (1897-1965) served as composer, music theorist, pianist, teacher, publisher,

Rayner: So that trend was already established by young American musicians to go to Europe, but was it primarily to Paris?

Strang: Well, the pattern of going to Europe had been long-standing, going back to [Edward] MacDowell and so on, and much earlier than this, because there was no real training in that side of things available in the United States up until the '20s or after.⁷ But the Paris movement, like the Paris movement for painters after the First World War, tended to draw people to Paris rather than the Germanic or Austrian area. So, while there were a great many people who went to Boulanger, there were only two or three who went to work with Schoenberg and the Austrian School.

and impresario. John Alden Carpenter (1876-1951) was prominent in the 1920s as one of the earliest composers to use jazz rhythms in orchestral music. Randall Thompson (1899 - 1984), professor at Harvard University, was noted for his choral works. Virgil Thompson (1896-1989) was instrumental in the development of what was called the "American sound" in classical music. Lou Silver *Harrison* (1917-2003) was a student of Henry Cowell and Arnold Schoenberg. Cowell (1897-1965) was a leading American composer, music theorist, pianist, teacher, publisher, and impresario.

⁷ Edward Alexander *MacDowell* (1860-1908) was best known for his Second Piano Concerto and his piano suites *Woodland Sketches*, *Sea Pieces* and *New England Idylls*.

Rayner: And of course, that was the time when Paris was the center for Igor Stravinsky, especially for his ballets.⁸

Strang: Of course, sure. And so you find this influence in that generation of composers who were doing their studying and their early works in the '20s.

Rayner: Was performance of their works happening as well?

Strang: Well, the performers of course were going everywhere, but to a degree the same thing happened in the post-war period. That happened partly due to a feeling of being overfed with post-traumatic Germanic trends, and partly due simply to economic conditions. Conditions in the early '20s particularly weren't conducive to drawing tourists into the Germano-Austrian area because of the inflation and the political troubles going on, even though conditions for foreign students and artists were far better in Paris.

Rayner: It was in 1923 that Henry Cowell went with Richard Buhlig to Berlin, and even they had problems.⁹ That was the year that the economy collapsed in Germany.

⁸ Feodorovitch Igor Stravinsky (1882-1971) moved from St. Petersburg to Hollywood, California in 1940, influencing American music deeply in opposition to the prominence of Arnold Schoenberg.

Strang: Yes.

Rayner: Totally.

Strang: Sure.

Rayner: They retreated to Vienna.

Strang: Yes. And even in Vienna there were problems.

Rayner: Yes.

Strang: So, during the '20s the trend to go to Paris sort of dominated things, probably becoming not so much a musical as it a social-economic phenomenon. And the same thing happened, of course, with the writers and painters; everybody went to Paris in the '20s. The novelists, the poets, the whole scene made Paris the center of artistic development for that period. Anybody who was the least bit forward-looking tended to go there, and only the more reclusive people tended to go to Germany, to Berlin, or to Vienna.

⁹ Richard Moritz Buhlig (1880 -1952) was an American pianist born in Chicago to a German immigrant father from Saxony who became widely known throughout his career.

Rayner: That would include quite a number from the West Coast as well?

Strang: Well, there weren't very many from the West Coast, but about the only special stipend that was available was the Prix de Paris from the University of California, Berkeley, and the people who got the money about that time all went to Paris.¹⁰ That included Charles Cushing for one, and a number of other people whose names slip me at the moment, who tended to go to Paris.¹¹ But it wasn't until perhaps ten years later that this trend was reversed, the main reason being that in the mid-'30s more and more of the outstanding composers, performers, and artists in every field began coming as refugees to the United States. And then the shift away from the East Coast began, since up until then there had been no consideration at all in artistic circles of being trained on the West Coast. In fact, anything west of the Hudson River was considered essentially barbaric. And so it wasn't until the period beginning in 1935, when so many outstanding Europeans began to collect in the Los Angeles area, that the balance began to shift and it became possible even for a person to get good training on the West Coast. Still, I think we have to recognize how tremendous a geographical shift occurred with respect to

¹⁰ The George Ladd Prix de Paris has awarded to a distinguished graduate student composer in the Music Department at the University of California, Berkeley, supporting year of study in Paris.

¹¹ Charles Cushing (1905-1982) studied at the University of California, Berkeley, directed the University Band from 1934 to 1952, and served as professor 1948 to 1968.

the presence of outstanding artists and the availability of training for younger composers. That shift represented a really tremendous relocation from the Berlin-Vienna axis, on the one side, to the West Coast of the United States, on the other. And, of course, since that period the West Coast has retained at least some respectability with respect to people to study with.

Rayner: Why did you feel such a movement to the West Coast? Was it was the film industry, the climate, or the awareness that Europeans liked to go to the spas?

Strang: Yeah. I think there's a great deal in that. The Pacific Ocean Palisades area and the Malibu area resembled the Riviera both geographically and climatically. And for Europeans, in those days particularly, the Riviera was the ideal sort of place to go, either for a retreat or to work. So whenever a European got a chance, he wound up somewhere in the Riviera area or perhaps in Spain along the coasts, places which have the same general kind of climate and geography. Well, people like Schoenberg and [Thomas] Mann and [Otto] Klemperer and [Ernst] Toch and [Ernst] Krenek, all the rest of them came to the United States, without any special positions or other reasons for settling in a particular spot.¹² They began to choose this attractive Riviera-like area.

¹² Paul Thomas Mann was a German novelist, short story writer, social critic, philanthropist, essayist, and the 1929 Nobel Prize in Literature laureate. Otto Klemperer (1885-1973) was not only a famous conductor

And of course, as things developed after a few of them came here, then others tend to gravitate here just because they were here. This became a kind of a Mecca situation. Everybody wanted to go to Mecca because all of their friends and all of the important people were beginning to settle here. It evolved from a trickle to a flood very quickly, until finally we wound up with a great majority of composers, writers, poets, and motion picture people who settled in this area. It did not seem to affect as much people in the graphic areas, painting for instance, or sculpture; the tendency did not seem to affect them very much. But in the musical fields, once it all started it became a general trend, and everybody tended to gather there.

Rayner: Were performers attracted as well?

Strang: Quite a lot of performers.

Rayner: Writers for the films as well?

Strang: Yes, yes, a great many of them. Writers, directors, and actors from all over Europe, really from Italy, from Vienna, from Paris, began to

but also composed six symphonies, a mass, nine string quartets, many lieder, and the opera *Das Ziel* (1915). Ernst Toch (1887-1964) was noted for fusing elements from the classical tradition with modern musical ideas. Ernst Krenek (1900-1991) was a prominent exponent of serial technique based in Vienna and Berlin.

collect in this area and one can see very easily why this was true of the motion picture people.

Rayner: Did they come with or without fluent English, initially? Was it accented?

Strang: Well, most of them had some sort of English if only the kind of tourist English which enables one to get around in another country, but for the most part their English was pretty feeble and their accents were pretty heavy. And of course, the mere fact that they collected here in large groups meant that they really didn't have to use English a great deal. So there developed the tendency by which refugees spent most of their spare time apart from whatever occupations they may have had, talking to one another. And so there developed an enclave of refugees; within the music and the movie areas it was simply a matter of course that most of the conversation went on in German, though a few in Stravinsky's circle people spoke in French. The acquisition of English on their part was mainly a matter of necessities of daily life and, of course, whatever jobs or affiliations they had with the motion picture industry. Even in that industry there was a lot of communication which still went on in German, because there were so many German directors, German actors, and German writers.

Rayner: But now the German actors would have good English?

Strang: In Europe, of course, actors had long ago learned that they had to be able to at least speak intelligibly in other languages, whether they with which they felt at ease. Whether they can communicate readily or not still induces them to acquire the same kind of ability which nowadays means that if an English actor comes to America he's speaking in the American manner—and if an American actor goes to England to make a picture he speaks somewhat in the English manner. Actors adjusted themselves very quickly to that, since gaining real command of English was necessary, even though I didn't know a great many of them. A person like Peter Lorre, for instance, went beyond being an actor, becoming a very intelligent, versatile guy much interested in everything, expressing himself very well in German, French, Italian or English.¹³ His English was fine except for a slight Viennese accent.

Rayner: Now we've run through to the '40s, so could we go back to about 1930, when you came back from London, did you possibly carry on with....

Strang: Well as I say, during the next five years I was in a position where at first I was working simply to make a living, but then that vanished and I was not making a living but simply getting by on what money I'd saved up. My wife and I lived in a little shack in East Oakland, and we found

¹³ Peter Lorre (1904-1964) was a Hungarian-American actor in Vienna and a variety of German cities, appearing in films in the late 1920s and early 1930s.

that we could get by on very, very little in the middle of the Depression. As a matter of fact, we lived on hamburgers and carrots for three or four years. And the bank allowed us to stay in the little shack we were occupying, even after we stopped paying on it, because it was better for the bank to have it occupied than to have it vacant. So it was a pretty primitive period.

During that time, I set myself to acquire some compositional techniques and points of view, and so it was a period during which I wrote a great deal, mostly in the form of self-contrived exercises or experimental compositions and things of that sort, and a great deal of that material went down the drain. But it did serve to enable me to at least to find out something of what one could learn of 12-tone techniques, what we could learn of polytonality and all of the other catchwords of the period. You must remember that there were no outstanding people in this area with whom one could study—in fact it was the other way around, since there was a period of a year or so when the chairman of the music department at UC Berkeley took correspondence lessons from me in contemporary techniques.¹⁴ He preferred to do it that way rather than face to face, for some reason, that I wouldn't want to guess at.

Rayner: You were still living in Oakland?

¹⁴ David Dodge Boyden 1955-61? See http://en.wikipedia.org/wiki/List_of_University_of_California,_Berkeley_faculty#Music.

Strang: I was living in Oakland, and he was living in Berkeley, and we conducted a correspondence course in contemporary techniques in which he wrote examples and I corrected them and make comments—and so it was very funny.

Rayner: And then you hadn't really been to Southern California?

Strang: No, no. We had lived in northern California entirely up to that period.

Rayner: What trips to the south did you make?

Strang: Yes. But very occasionally, we had ties with the south. Anyway, during this period I wrote a great deal, most of which was thrown out as experimental or practice work. Henry Cowell saw some of it, and my first published compositions was an unaccompanied clarinet piece, which the New Music Society of California published, I think in '33.¹⁵ So I was becoming a composer by the bootstrap method, since there was no other means available. And so, of course, when I heard that Schoenberg was in the United States, I began to try to make plans to go to the East Coast,

¹⁵ The organization, formed by Henry Cowell in 1925, was active chiefly in the San Francisco area until about 1946; see Rita H. Mead, "Henry Cowell's New Music Society," in *Journal of Musicology* 1 (1982), 449-463. The New Music Edition was a separate, though in effect related, undertaking, involving publication of works by living composers (see below).

and when I heard he had come to the West Coast naturally I gravitated toward him. The detail of that development revolves around the work we were doing with the New Music Society of California.

During this period, Henry Cowell had started the New Music Edition, back in about 1929.¹⁶ And he had also started the New Music Society's programs in contemporary music, most of which took place in San Francisco or Carmel, and occasionally would take place in the Los Angeles area. And as an aspiring young composer, I got involved with the mechanics of that operation for a period of roughly two-and-a-half years, from 1933 to 1935. I operated what we called New Music Workshops on both sides of the San Francisco Bay, in which we got together a few musicians to play or sing, running through any kind of contemporary music we could get ahold of. This was quite apart from concert activities, done simply in order to familiarize musicians with what was going on.

In the spring of 1935 Henry Cowell persuaded Schoenberg to come to San Francisco to conduct a New Music Society performance involving *Pierrot Lunaire* [Opus 21, 1912] and the Chamber Symphony [No. 1 in E major, Op. 9]. And of course, this gave me a chance to get acquainted with him and to meet Mrs. Schoenberg, and his daughter Nuria was there, too. I learned that he was giving a set of courses at the University of Southern California that summer, and I heard that there were scholarships available. He advised me to send in some things by which to apply for a scholarship, for which I was accepted. And so in the summer

¹⁶ The New Music Edition was an imprint of music publisher Carl Fischer LLC, involving choral and instrumental works chiefly of American origin.

my wife and I scrounged together enough money to go down to Southern California so we could get acquainted with Mr. Schoenberg. And, of course, that started an association which continued until his death in '51. Leonard Stein and I and one other musician were in the summer classes, and the rest were middle-aged school-teachers who had come to USC to get some units to apply on their salary scale advancement.¹⁷ And since that famous name was around, nothing would do but they must register in his classes. While they were not really concerned about what went on in the classes, but the opportunity was a good thing for them to do for a summer.

This was a tremendous trial for Mr. Schoenberg, and it led to a kind of relationship that continued for quite some time. Leonard Stein played the musical examples which Schoenberg would then analyse or use as illustrations. I sat alongside him at the desk and, even though I had no real knowledge of German, I was responsible for providing him with English vocabulary to teach these classes. Now, this obviously was a tremendously difficult and rather ineffectual sort of relation between

¹⁷ Leonard Stein (1916-2004) was a musicologist, pianist, conductor, university teacher who was influential in promoting contemporary music on the West Coast. See his article, "Gerald Strang (1908-83)," *Journal of the Arnold Schoenberg Institute* 7 (1983), 255-62. Strang published articles in the *San Francisco Chronicle*: "Schoenberg's Stature in Musical World as Limited by Associate," 18 July 1937; and "Concepts Evolved by Musical Exploration of Arnold Schoenberg, 25 July 1937. See Feisst, ed., *Schoenberg's Correspondence*, 132.

teacher and pupil and everything else which surrounded his visit. It was very difficult for Schoenberg, as well as for the students; even though it was stimulating, it was also frustrating, since Leonard and I were the only persons around who really had much idea what was going on. And, of course, I very quickly became his teaching assistant and went with him to UCLA [in the fall of 1936], staying in the background for everything he did during the period from 1935 to 1938. I just might say that I was in and out of his house and chauffeured him back and forth to meetings and social engagements. For example, I copied the parts for the first performance of the Fourth String Quartet [No. 4, Opus 23, 1936], and we discussed the composition of it all through the period when he was writing it. I played Santa Claus at the family's Christmas Eve in 1935, and, as it happened, that was the evening when he was notified of the death of Alban Berg. He being Schoenberg's closest friend, the experience upset him terribly, but nothing would do but that Nuria must have Christmas Eve intact. So I got on my Santa Claus suit and played Santa Claus for that evening.

Interview 2 with Gerald Strang, Led by Clare Rayner

Strang: Where do you want to start?

Rayner: Well, last day we ended up with your time at Long Beach City College and it seems possibly if we continue your biographical material, I believe then you moved to San Fernando.

Strang: Yes, that's right. That was in 1958, which is a year I try not to think about any more than I have to. All sorts of things sort of ganged up. On me It's kind of amusing the way I went to San Fernando—I had been employed as acoustical consultant on the new music building, which involved a big project there. And then....

Rayner: Oh, at San Fernando?

Strang: At San Fernando, in the Valley State College, which was just beginning, and at that time they had nothing but a bunch of temporary buildings. So they very sensibly decided to build special purpose buildings first while the money was available. The first project consisted of the library, the art building, the music building, and the drama building. The idea was that the academic departments could get along, if necessary, in the home economics facilities for a while. The result was that we built a full-time music building designed for 500 music majors. And during the first ten years or so, the whole Education Department and several of the social science people also roomed with us, you see, until after a while they began to get to general purpose classroom buildings and the like. So, their philosophy was to do this, and the first building

was this large, elaborate and extremely well thought-out music building. I was in an acoustical consultant on that and got acquainted with the members of the faculty, of which there were at that time four in music. And the upshot of that was that they asked me to come out as Department Chairman and offered me a full professorship, which I could hardly turn down.

We moved to the [San Fernando] valley and about three weeks after we moved my wife died, and six weeks after that my son, who had been born in '43, was drowned in the ocean when I took him and a couple of his friends down there in Huntington Beach for a swim. And with the establishing of that department and the building of the buildings and so on, it was a fairly rough and involved time. And then at the end of December of that same year I married my present wife, Eileen, who was a cellist who had been teaching part-time at [Long Beach] City College and at Long Beach State College [University from 1972], indeed also at USC—so I'd known her for a long time.

So, then this changed the whole motive of my life and everything else because I had been completely tired down from the previous six years with the nursing and the cooking and the raising of the boy because my wife, Claire, had been bedridden during her period. So, it was a very major change both in respect to my academic life and in other ways. In any case then, so I went out to San Fernando Valley at the time when we had a faculty of four in music, and in the next five years we built it up to a faculty of twenty. We moved into the new building and equipped it with a very fine electronic recording set-up.

And during the same period I was free to more or less come back to composing. As I mentioned earlier, I ran into a kind of a hiatus there—I wrote rather actively in the early '50s a Cello Concerto [1951] and a Concerto Grosso [1951], and a number of other pieces. And then long about '52 or so partly, because of the pressures under which I was operating and partly because of a kind of aesthetic vacuum had existed for me at that particular time, I didn't write anything for about ten years, making just a complete blank. And the reasons for that were partly of course a matter of my personal circumstances but partly just sort of a philosophical vacuum which existed in my life. Basically, I had become more and more aware of the limitations and the inadequacies of the traditional system of preselected, predetermined pitches. In short, I was fed up with a tempered system and anything related to it. I was becoming more and more aware of the vast desert which exists between the keys on the keyboard instrument, between the notes, the predetermined notes of our traditional scale. And of course there was no ready way at hand to explore that vacuum at that time. So in effect though I didn't know it I was waiting for the arrival of computers and synthesizers, which would make it possible to go on in that general direction.

Rayner: And yet earlier you had been interested in tuning and temperament exposed to that kind of thing.

Strang: Yes.

Rayner: Also earlier through Henry Cowell, wasn't it?¹⁸

Strang: That's right. I'd been interested in this sort of thing and had been exposed, for instance, to Wesley Kuhnle's experiments [1898-1962]¹⁹ and Ivor Darreg's experiments [1917-1994].²⁰ I was particularly interested in Wesley, whom I knew rather well from 1935 on. And so, as you say, I had been interested and concerned in problems of tuning and temperament, and this combined with my acoustical studies and investigations and involvement led to all kinds of thinking in the general realm of pitch sets, pitch selections, and tunings. That of course inevitably led me to become interested microtones and micro-intervals because you can't escape these as soon as you get into the problem of adjusting the scale. This had been sort of going on during the interim period in my career.

¹⁸ Henry Dixon Cowell, (1897-1965) was an American composer, music theorist, pianist, teacher, publisher, impresario, and husband of Sidney Robertson Cowell, known for her collection of folk songs.

¹⁹ Wesley Kuhnle (1898-1963) was a musicologist and performer, mainly concerned with historic tunings and temperaments of early keyboard instruments. See Clare Rayner, "The Wesley Kuhnle Repository at California State University, Long Beach," *Notes of the Music Library Association* 33 (1976): 16-26.

²⁰ Ivor Darreg (1917-1994) was an American composer and proponent of microtonal or "xenharmonic" music and created a series of experimental musical instruments.

Rayner: Doesn't this also go back to about 1942, when you read a paper at the AMS [American Musicological Society]?

Strang: Well, that – yes that actually evolved out of it all. I read a paper on indeterminate, variable pitches involved in much oriental music, which to some extent is tied to language characteristics. I was concerned there about the nature of Chinese versus Japanese, and with the Chinese having inflections where pitch plays an important part in the intelligibility of speech. This ends up as a tendency to slide up and down and to vary about a pitch, and not to maintain some of the others.

Yes, I'd almost completely forgotten this, the AMS meeting where I talked about that problem. But this was essentially also tied into the same thing, the idea that there already existed music in which the fixed steady, straight pitch of occidental music was not only not required but it was impossible in terms of the intelligibility of that kind of material. One had to allow for the intonations of speech, and therefore one got tones which varied often around a basic value but in which that basic value might only be passed through though, never really sustained or maintained. But all of these things of course are tied together to create an interest in other problems that interested me.

Now the pieces that I was experimenting with at Bell Labs at that time immediately took off from the direction that we've been discussing—that is to say it's very a simple thing to set up any kind of a predetermined pitch set, or any kind of tuning or temperament that one

wants. And then the computer carries on and produces whatever the chosen pitches are, with complete dependable accuracy such as you can hardly get by tuning a harpsichord or any other kind of acoustical instrument. I started out right at the beginning experimenting with such materials as, for example, a 13-tone subdivision of the octave instead of 12- or 19-tone subdivisions, which later became a favorite of mine—or indeed a 21-tone subdivision. An equally tempered scale dividing the octave into that number of intervals is a trivial problem when you're dealing with a computer, and so it becomes possible to experiment with all kinds of subdivisions of the pitch field and all kinds of scale structures, equal or unequal, that one might want to know about. I also worked with other problems and verified a number of opinions that had come about in the past. Among other things, it became obvious that one can mix pitch materials that formerly would have been thought completely irrational, completely impossible, but now we them used together.

For example, I used noise bands of various types in which the pitch range of the noise band was very carefully controlled but in which the internal pitches were very rapidly successive, random pitches within certain limits. I also used in combination two or more different subdivisions of the octave, so in effect then I was using two disparate and quite contrasting tunings with different numbers of pitches within the octave simultaneously. And as well, random passages in which only the general range, the temper, and the rhythm were controlled, but on which the pitch is chosen came from random processes. So here in one piece, it

was possible to have several different tunings, noise procedures, and random pitch selections mixed together, provided one had a musical idea and one organized and arranged these things in a manner that the human mind can absorb and make some sense of. It worked out very well, so well that, much to my surprise, some of my string playing friends who've spent their whole careers attempting to do a very unnatural thing, that is, to accurately reproduce fixed definite pitches which are not overtone pitches. When put on strings, this—believe me—is the sort of task which only a human would attempt, because it's at least theoretically impossible.

So, string players are peculiarly sensitive to minor variations of pitch involved with maintenance of intonation and things of this kind. And yet playing some of these pieces for my string-playing friends, including my wife, I very soon found that if one didn't tell the listener what kind of pitch subdivision one was using that they would just tend to accept as given whatever system one was using—provided it was reasonably logical and made some kind of sense and was organized in a reasonable fashion. Nobody seems to be very much bothered by the fact that the pitches used were for the most part completely at variance, helped by many years of conditioning and practice, and so on, which people are going through in order to attempt to produce accurately a tempered intonation. I had assumed that just the psychophysical conditioning of these many years of hearing tempered material and of attempting to produce temporal material on acoustical instruments. I had assumed that this kind of thing would have set up very strong

discriminations and would have led people to reject very quickly any deviation from the conventional system which they were capable of recognizing. And yet almost immediately it became apparent that people would accept a different system without any real pain or without any tendency to reject it. This was not wholly a surprise, but what did surprise me was the ease with which some of these strange string pitch situations were accepted.

I had long ago learned from my own experience that in listening to oriental music based on quite different tuning systems or primitive music, that one can quite quickly become accustomed to it even to the extent where one can sing pitches, pitched subdivisions, scales, and intervals that one is not used to, and produce them with considerable accuracy. So I was prepared for this but the fact that people would hardly even be aware of these deviations from the firmly established convention—*that* surprised me. So, you can see here that even in this very beginning of my exposure to computer music, the first thing I was doing was to explore some of these problematical situations that I've been speculating about for the last ten years or so.

Well, to wrap this up in sort of short order, I've maintained my interest in computer music from 1963 on to the extent where I secured the processing program and brought it back through work with some people at UCLA, eventually making compositions called *Music Four* and *Music Five* as synthesis programs operative on the computers at UCLA. And I've been working intermittently but more or less steadily with computer composition and computer research ever since that period. The

complete implications of that are not really something when can go into in this kind of a situation. That would take at least six or eight hours just to discuss the one aspect of the thing because there are so many problematical and experimental things involved. And there's a great deal of technical matter in programming procedures, devices for making the compositional process easy, as distinguished from the strangeness of using numerical processing to produce musical results. In order to work successfully with this kind of a medium one has in effect to design one's own instruments, find out what they can do, determine what kind of sounds they can produce, and find ways of specifying all of this. And, in effect, to reproduce practically the whole evolution of musical production, and do it in numerical terms.

Obviously, all that paraphernalia and all of the uncertainties involved can be very inhibiting to the compositional process. And so, in order to find ways whereby one separates the experimental and the speculative and the theoretical from the compositional process. In point of fact, one eventually finds ways of doing this, learning to use the computer for those things it does well, and use the human contribution to cover the things which the human does superlatively well. Thereby one finds that the use of the computer as a tool is an extremely efficient, rapid sort of process. In point of fact, the computer programming itself gets in the composer's way much less than the necessity of approximating what he wants on paper with ordinary notation. One can express, for instance, with just a few punched cards, the equivalent of several minutes of music which might involve, say, 100 pages or 200

pages of actual score if you try to do the same thing with conventional instruments.

Now the other side of the thing is, of course, that it becomes very difficult, very cumbersome, to imitate the effective acoustical instruments on the computer. But, on the other hand, if one is thinking in terms of the computer as an instrument, one uses it for the things it does well instead of attempting to imitate acoustical procedures—and then the resources become very rich. And you tend to depart more and more from the analogy of the acoustical instruments with which you inevitably start because that's what you have been brought up on. Well, it's quite obvious that I'm enthusiastic and full of ideas on this sort of thing. and I'm continuing to do it. But I think perhaps this is about as much as one can stand in one interview.

Rayner: Well, I think as far as the actual details of the compositional procedure go, my record of what's notated is between 1963 and '69 that you have the *Composition* Number 2 through 7 on tape. Now, I'm sure there are many more.

Strang: Yes, that's correct. Well actually as far as the ones that I consider a part of my repertoire, I've discarded as either simply experimental or incomplete, that is, Numbers 1 and 2. So I consider Number 3 to be the first one that I preserved as a composition. And now through "*Composition*," please note the spelling "*Composition*," I'm through *Composition Number 10*, which is a rather long work of about

thirteen minutes. Needless to say, these represent merely finished products which I would be willing to have produced. They represent only a small fraction of the actual work done with the computer. Because it's not at all unusual for one to spend 95 to 98 percent of the time involved in producing a composition just in setting up the program. The actual composition is very fast, very efficient. But the preparatory work of devising your instruments, inventing your tempers, creating compositional subroutines. and all the rest of the preparation that goes into it, can be extremely long. Well, it would be still longer if one decided that one had to build one "pseudo-oboe" from scratch, learning how to handle the materials and devise the mechanisms and so on. So I would say that even from the standpoint of building an instrument that the computer is far more efficient.

Rayner: Yes, understandably.

Strang: It's better than building your own instruments.

Rayner: And you have other compositions in progress, I assume.

Strang: Yes, I have a number of things that are in various stages. I haven't been doing so much in the last year or so for aesthetically irrelevant reasons. It's been harder to get computer time, and I've developed enough other interests so that I haven't felt impelled to spend

so much time on it. But there are a lot of things that I would like to go on to pursue intensively, and now I perhaps will.

Rayner: But now your concepts of composition, your aims in composition even, seem to have taken a major shift from the earlier period.

Strang: Completely. As a matter of fact, I haven't written a piece of music for acoustical production since the early '50s. After that I got started in the electronic field, including more than just the computer side of things in which I've done a great deal with that. I have written other works which I call "scintheons", since I got involved at UCLA. We started biographically, and now here we are off on this tack. But I might just as well continue in this direction. After I retired from Long Beach, I agreed to teach a class at UCLA on techniques of electronic music, again something for which I had no particular direct background. I sort of dropped into that the way I dropped into computer music. Walter Rubsamen didn't have anybody to teach but they had by a fluke got an electronic music studio.²¹ Before the electronic music studio was hooked up to the point where you can produce sound, I started teaching class in electronic music I taught that until 1975— or rather 1974, I guess it was. So while I have also done other types of electronic music, my entire

²¹ Walter Howard Rubsamen (1911-1973) was professor of a musicology at the University of California, Los Angeles (UCLA); he specialized in the chanson and the madrigal. See the collection in his name at the UCLA Library.

production in the last fifteen years or so has been in these terms. I found that I simply was too straitjacketed by the restrictions of conventional music and by accepted musical conventions. Since I've been speaking almost exclusively in terms of pitch, it should be understood that matters of rhythm, for example, are also subject to similar treatment and involvement.

And another thing which I anticipated, and have found verified, is that I've concluded that one also has to revise the whole viewpoint toward musical form and organization. One of my most frustrating experiments with the computer came with my writing a prelude and fugue, which is Number 9 in the series of the *Compositions*, for which I wrote five or six different versions. But the use of a traditional form like this with such of material, using the possibilities which exist with this kind of a medium, makes it simply seem so inconsistent that it's clearly evident that an entirely new approach to the problem of musical form has to be evolved which is more compatible with the kinds of materials, the kinds of processes, kinds of treatment, that one uses. And I think this is true of all electronic music.

One of the reasons that electronic music so far has been less than impressive as compared with concert music is simply that we've not yet learned how to handle the structure of electronic music in its own terms. It has to be done in a manner which is as fluent and its facile and as adaptable to one's musical purpose, as the traditional form. Traditional form, or traditional theory, simply do not work, and that realization has many other consequences. Here we go again! One of these

consequences I brought out at some length in a lecture I gave at Bell Labs in 1971 (or 1970) which I call “the death and the rebirth of music theory.” It’s clearly obvious that when one gets rid of the conventional pitch and rhythm structure that all of the specific conventions of musical theory—harmony, counterpoint, the idea of the fixed pulsation which is organized into integral groups or integral subdivisions. All of this forms part of how conventional theory has to be revised or modified. We’re now in a position where from a theoretical standpoint it’s a great question whether the traditional academic training really has any part any more in the training of composers. The young composer are fortunately more and more interested in the kind of materials and methods that we’re talking about.

All of which has very important implications for music education—so much so that at this point, if I were offered the opportunity to teach composition again, I would simply turn it down. I no longer have any idea how to train young composers in spite of the fact that I spent something like thirty-five years teaching this sort of thing. And I simply do not find that most of this material has any place in the training of composers any more. The conventional theory is not unimportant but it really is important from the musical logical standpoint for the comprehension, the understanding, of the literature of the past. It simply has little or no place in the training of composers. Now, if that is true then this means a completely new point of view. It means the laborious evolution of new methods of teaching new approach, new aesthetics, new philosophical attitudes, it’s a major affair which I think can only be compared to the

Einsteinian revolution in physics. Einsteinian mathematics and physics at first were considered completely unintelligible and were considered to be contradictory of Euclidean physics and mathematics. Now we see them as simply a much broader organization within which the Euclidean physics and mathematics have a place within a region of, or rather a middle ground between the infinitesimals and the astronomical, so to speak. When one gets out of this middle ground then the Euclidean approach no longer works. Musically we have a situation. in which traditional theory works extremely well for traditional music. But when one gets to infinite subdivisions of the pitch scale, or when one gets to arbitrary choice of pitch sets, when one gets to the use of rhythms in which there is no underlying pulsation or regularity—though there is still organization of the time factors and the durations—one obviously now needs a theory which is going to include a much wider field. And so the Einsteinian revolution in music theory is yet to come/ But it will have to come in order to accommodate the use of mathematical and electronic devices and the techniques which are associated with it.

Rayner: What a fascinating change in ideas or philosophy! That suggests that we go back to Schoenberg, since I understand that he always connected with traditional ideas even though his style was new and revolutionary at that time. Indeed, you came through training with him and thereby formed part of this change of thought.

Strang: Well, I think the fundamental changes of this century were in the '50s and '60s, not in the '20s or the early part of the century. Schoenberg in other words was in fact attempting an organization which was on the extreme outer limits of the conventional theory. And he being essentially a conservative soul did everything possible to try to retain the concepts, the methods, and the analysis which he had acquired from his own background. Far from being a revolutionary, he was tenacious as a conservative and attempted to stretch the earlier methods of concepts to include what he felt he had to do on other grounds. But it's gotten to the point now where the whole serial procedure, the whole methodology that grew out of Schoenberg's composing with 12 tones. This whole thing is not really very relevant any more. Young composers may pay lip service to it, they may go to Princeton and follow the Babbitt analogy while they're in college.²² But the young composers, who are using newer resources, are simply not employing serial methods, not anymore. With the computer it becomes very easy for one thing, to carry out all the serial procedures. This can be done simply by setting up an appropriate computer program. I have a program which will operate with any degree of variation one likes. All of the 12-tone manipulations which are common to the serialists—and do a lot of other things as well in handling the material—can be entirely done by the computer with a very small number of instructions.

²² Milton Byron Babbitt (1916–2011) was a composer, music theorist, mathematician, and influential teacher, noted particularly for his techniques of serial and electronic music.

In effect, the whole serial procedure which was conceived in so cerebral and so laborious terms at an early date, becomes trivial from a computer standpoint. And from the standpoint of a composer using an electronic computer, using synthesizers and so on, there really is nothing much in the serial point of view which is useful or attractive. So again, the 12-tone system and its outgrowth, the serialism, the post-Webernian serialism of the '50s, essentially appears at this point to be a dead end as far as the progress of music in this other direction is concerned.²³ It's either not applicable or it's trivial, one of the two. So again, a very major basic change in the approach to musical theory becomes inevitable and necessary.

Now, you commented about my having gone through the Schoenberg training. Yes, this is true but it very quickly became clear to me that this was no way for me to go. And as I've said earlier in this series of tapes that I never really wrote in a 12-tone system or at least not in the Schoenberg said sense of it. Though it was kind of fun to devise a computer composing program, which would do all of these things with strictly no pain, you know. It came so easy and so simple to do. Well, where were we now? Let's see.

²³ Anton Friedrich Wilhelm von Webern, (1883-1945), the Austrian composer noted for the original design of the 12-tone system, has had widespread performance of his *Passacaglia for Orchestra* (1908) and his chamber music.

Rayner: Well, I did want to interpolate this section but we were back in San Fernando which was the logical take-off point for looking at your compositions again.

Strang: All right. Well, let's get the biographical part of it out of the way and forget it. After building that department, that building and equipping it and so on, for various reasons, partly personal, I chose in 1965 to return to Long Beach State, where there had been some personnel problems in the music department. And since I knew all the people involved but was not really connected with any of the factions involved, and since I had other reasons for coming back to Long Beach, I simply accepted an offer to return in 1965. And I came as department chairman then and remained until I decided to retire in '69. Partly the reason for that was that my parents lived in Long Beach and were becoming rather feeble, and my wife and I were spending a great deal of time in the freeway running back and forth looking after them. So, I accepted the job out here and then in the period between the time when I accepted the job and the time we moved to Long Beach, both my mother and my father died. So the primary reason vanished before I got down here.

But there was also a prospect in Long Beach State getting a new music building. Of course, it's obvious that I had become very much involved in acoustical matters more and more, and so I was interested in that also. We came back and I stayed here, and then in 1969 I carried out a longstanding project that. once I got near to the age of sixty I would retire as early as possible from the academic world—in order to do a lot

of the other things which I had lined up. And what is often unrealized is that when one gets involved in academic administration it's a consuming business. You simply do not have much energy or time left for other things. You find yourself spending just so many hours a day and that you're sort of precluded from doing a lot of other things. Of course, then in 1969, as soon as I retired. I went back to Bell Labs again and got involved in much more computer music and the UCLA electronic music lab. And the results were that I was busier than ever but on my own schedule, which really has much recommend it. So, biographically that's about what has happened. The other thing which has occurred that I think ties in is that my early work back in 1950 with the acoustics of the Long Beach City College Music Building gradually became known and led from one thing to another. And my old friend Peter Yates was very interested in this sort of thing.²⁴ So, long about '63 or so he told people at Wesleyan University in Connecticut how to get a hold of me in connection with their proposed music plan.

So I worked on that off and on for a period of about nine years and of course then the Pomona music building came along. The same kind of architecture as I had done for the Northridge Music Building. And then

²⁴ Peter Yates (1910-1976) played a central role in musical life in Los Angeles in his collaboration with his wife, pianist Frances Mullen, directing the concert series Evenings on the Roof as the center of contemporary music in the area; see Dorothy Lamb Crawford, *Evenings On and Off the Roof: Pioneering Concerts in Los Angeles, 1939-1971* (Berkeley: University of California Press, 1950).

for the last seven years or so I've been involved with Quincy Jones on the UC San Diego campus.²⁵ And this was combined with a large number of other projects meanwhile to the point that I have now been involved in something like twenty-five different college and university music buildings as an acoustical consultant. I have worked with something like twenty different architects of varying degrees of provenance and sandwiched in a large amount of diagnostic and remedial work for such disparate things as churches, motion picture theaters—and even the problem of highway noise for parochial schools. And just in the last two or three years, this has gotten to the point where I really have as much work as I want to take on in the general field of architectural acoustics.

Finally, the interesting thing about this sort of thing is that one rarely gets an opportunity to use any skills or talents of this sort in his own campus. I was consultant on the music building at Northridge before I went there as department chairman. And recently I was consultant on a new student union at Northridge after I retired. And the same way with Long Beach during the time when I was in Long Beach and associated with Long Beach State [College], I never had any opportunity to do this sort of thing but now recently, since I retired, I've even got a job on the Long Beach State campus. That's the old story of....

²⁵ Quincy Delight Jones Jr., born in 1933, is an American record producer, multi-instrumentalist, songwriter, composer, arranger, and film and television producer.

Rayner: And, of course, while you were there Music Building project began...

Strang: Oh yes, and then of course, the music building, was part of the reason I was brought back to Long Beach, postponed over and over and over again, so that it never actually reached any point beyond the preliminary criteria. So the acoustical consulting business now is at a point where I simply have all I want to do. Currently, I have five different buildings on the USC campus that I'm working on—which is another place to say I got my PhD at USC. But only recently I've never done any work on the USC campus.

Rayner: Yes, but in reality you have been still active in Southern California for so many decades that even though you had or had not been at an institution, they still know of you and know of your work.

Strang: Oh yes. But when you're there as an employee you could provide services for nothing, and so on and so forth. They might give you a little load credit on your professorial load or something of that sort. They could really get your services for nothing.

Rayner: In your commentary though it seems the other aspect was administrative. Apparently back as far as the time you were at [Long Beach] City College you were in administration. And so this was another side of your career.

Strang: Yes. I've never been able to make up my mind whether that was a desirable or undesirable side effect. Somebody has to perform the administrative duties, and the universal procedure in academic circles seems to be to take somebody who happened to be either a good guy or a good teacher and promote him to become a bad administrator. The kinds of interests and qualities and so forth which make for the best administrator are, I think, pretty much at variance with the kind of qualities that make for a good teacher or a good research man. And I've always been skeptical of the shifting of good teachers and good researchers into administrative channels. Nevertheless, somebody has to do these things. And when one sees needs that have to be supplied, one has a tendency to grab hold and do them if necessary. And I got involved in musical administration simply on this basis, that either nobody else would do it or it was something where I saw I could do it better than anybody else. So, I became a department chairman in 1952 or '53 and remained a department chairman until 1969, at which point I figured I had served my time.

I have really nothing to say about my administrative duties or my administrative abilities except to say that I think I carried them out competently but I never felt any real talent for this sort of thing or any desire to get involved in it or to go any higher in the academic hierarchy. It seemed to me that this was the minimum I owed to my colleagues and to the music program and then anything over that would have been – well, would have been a violation of the Peter Principle. Of course, the

other point of view is that perhaps as a music administrator, I had already reached my level of incompetence and so there was no point in going higher. But I ran a lot of music departments for about 17 or 18 years.

Rayner: And clearly successfully, quite successfully.

Strang: Well, I think probably we're more successful than unsuccessful. But I never got any particular satisfaction from that sort of work such as I've gotten out of, for example, the research work, the composition, or the other activities we've been talking about—or the acoustical side of things. The work with acoustics and work on buildings has given me a great deal of satisfaction. But, unfortunately, most working musicians don't realize is that music is not just a matter of the symbols on paper or just a matter of the sounds produced by instruments and voices. Any time music is produced, it's also a function of the space in which it exists.

Musicians tend to blame a lot of things on acoustics but they seldom will play in the space in which they worked. And in effect this makes every performance different in a sense that we don't usually think about—that when you carry your performance from one hall or auditorium to another or from a rehearsal hall to an auditorium, in effect you're changing your instrument, and this need to be taken account of. Now, the problem of the architectural acousticians as far as music is concerned is to try to set up a situation in which the space interferes as little as possible with the production of music. And I say that literally

because any space is going to color it, going to color the production. The aim is to produce a situation in which the environment is as transparent as possible and to introduce as little alteration and distortion as one can achieve.

It's never possible to create a space which is ideal for all kinds of music. There are always limitations, since a space which works well for one kind of music may not work well for another. A very simple example of course is not to play harpsichord in the [Los Angeles] Music Center, a pretty ridiculous proposition.²⁶ Just the size of the space is one factor which can't adapt to all types of musical situation. But to clearly delimit what one expects to accommodate and then to, as I say, create a situation in which the environment interferes little as possible—that is what the acoustical side of things should contribute.

Rayner: You know, I think that although you have delved into many areas within the music field, I can see the integration and the logical progression one from another.

Strang: Oh, I think so. The engineering work that I did in Douglas helped with the acoustical work; the acoustical electronic work which I had to go into in order to handle the buildings I was responsible for, it all tied in. And, of course, I would never have been able to use the computer and

²⁶ Built originally in 1967, the Los Angeles Music Center is home to the Dorothy Chandler Pavilion, Ahmanson Theater, and Mark Taper Forum; see <https://www.musiccenter.org/tmc-offstage/>.

electronic music so effectively if I hadn't had also the acoustical background. I think a lot of people are stymied by some of these new developments simply because they don't know enough about the nature and behaviour of sound itself. Or at least they haven't analyzed what they feel about the behaviour or sounds sufficiently to apply some of the newer methods.

So I think you're quite right; I think it all ties together. In fact, I've often said to students that from an educational standpoint, I don't think it makes a great deal of difference what your major is, or what your concentration is, or how many class hours you put into a thing. Everything you do is a part of your background, and sooner or later it will have some influence in what you do. And I think that my philosophy major at Stanford was a part of that, I think perhaps the speculation I've done on the integration of these various fields depends to some extent on that very early anomalous situation where I had no real music in my undergraduate training.

Rayner: No, I think it does also.

Strang: A broad academic background in my case I think has turned out to be a very practical solution. Probably much more practical than if I'd specialized in my training. There are situations in which the best specialization is generalization. We need more generalists, as somebody said.

Rayner: Maybe, yes.

Strang: That takes care of a lot of speculations and it takes care of a biographical side of things. Now you got anything else you want to go in or shall we call this....

Rayner: Well, I think this would be fitting stopping point.

Strang: Enough for the session. Okay I agree.

Rayner: And thank you once again.

Strang: Sure.

Interview 3 with Gerald Strang: Led by Clare Rayner

Weber: What kinds of jobs did most composers hold? I assume that it must have been a whole variety of possibilities?

Strang: Well, of course, serious composing in the theatrical field, and especially in the then unpopular fields, was no more a means of livelihood then than it is now. And there was no possibility of making a living in that way. In the period between the '30s and the '50s I suppose there weren't a half dozen of what we would normally call "serious" composers who were making a living out of their actual compositions, including even people of the prominence of Schoenberg and Stravinsky. Stravinsky came as near as any of them to doing that. But of course, he didn't do an awful lot of conducting. That sort of thing was probably more responsible for him getting some money out of his work than other compositions, since nobody made any money out of composing. And so, it was a matter of finding your way into some sort of compromise, since there were a great

variety of procedures that depended a little on the prominence and the personality of the individual. For example, people like Roy Harris lived almost entirely for a long period of time on handouts from various patrons.²⁷

Weber: Could he live on commissions?

Strang: Not entirely on commissions, but pretty close to that. That is to say he would live for a year at the home of some wealthy person, or he would otherwise get his living expenses taken care of through that person. I remember one period, for instance, when Roy got very much interested in Gregorian chant, and, knowing that the Library of Congress had a lot of such materials, he decided he was going to Washington, DC. He simply telegraphed Elizabeth Sprague Coolidge and told her he was coming to Washington and was going to be there for a while studying Gregorian chant. He would expect to live at her place while he was there. She agreed to that, since at that time she was subsidizing composers both by commissions and by paying for performances, doing things of that sort. And so he agreed, and he stayed there for a considerable period, several months, in her Washington, DC, apartment.

Weber: So it took a certain amount of brazen to do that?

²⁷ Roy Harris, the by-name of Leroy Ellsworth Harris (1898-1979), who was a composer and a teacher who came to be regarded as the musical spokesman for American music generally.

Strang: In the theater world, too. There were quite a number of wealthy widows around or people who would, well, belong in that general category, and who had estates and would allow composers to live in their carriage houses or their guest cottages or what have you, for long periods of time. And, of course, for us in those days, if we had living expenses covered, if we could eat and get around a little bit, we really weren't much concerned about anything else.

Weber: Do you think there were many people who were able to take such a route?

Strang: Not so many, it took a certain type of personality and it took a certain kind of already achieved prominence. But there was a certain amount of subsidization, and a less meretricious aspect of it was what Ives did for the magazine *New Music*.²⁸ That was the sort of thing that I've done *New Music*, for he underwrote the publication of the magazine right from the start and continued to do so. At the time I was running *New Music* it was costing \$1000 to \$1500 a year all told. Now, that

²⁸ As noted in Chapter 1, it is important to distinguish the magazine called *New Music* from the *New Music Edition*, a collection of new works, both begun by Henry Cowell. Began in 1925, it was managed by Gerald Strang while Cowell was in prison (see Chapter 3) and was adopted by *Carl Fisher Editions* in 1955; See https://library.syr.edu/digital/guides/n/new_music_ed.htm.

sounds like very little today. But that made the difference between the subscriptions and being able to publish the magazine; there was not the commonplace method of getting by that we now take for granted. Very little opportunity existed for composers of any progressive tendency to get into an academic environment. There were people like Daniel Gregory Mason, and there were others of considerable age and very conservative tendencies, who taught in some of the universities.²⁹ But there wasn't much composition taught in any of the universities or even in the conservatories. The people who had those jobs were not the young composers who were progressive but were nonetheless making some pretence of developing resources of new music. It was very difficult to get academic positions in those days, whereas now I would say probably most serious composers get an academic subsidy by teaching or doing research work in some academic institution.

Weber: In fact, you said on the tape with Clare Rayner that you were the first person to enter the USC [University of Southern California] program and take a degree in composition.

Strang: Yes, I got the first doctorate that USC gave in composition. At that time in the Los Angeles area there was to all intents and purposes no

²⁹ Daniel Gregory Mason (1873-1953) was the son of Henry Mason, a cofounder of the Mason-Hamlin piano company. He was also a nephew of pianist-composer William Mason and grandson of the music educator Lowell Mason.

teaching of composition that amounted to anything. The beginnings of that came about through the Alchin Foundation, which was set up from the private estate of Cathryn Alchin, who was best known for having written a series of harmony textbooks, theory texts, to be used at either the high school or college levels.³⁰ She made a lot of money out of her textbooks, leading her to establish a foundation at USC, which was intended to aid young composers and subsidize the training of composers. It was the Alchin fund that was able to pay Schoenberg's salaries when he first came to Southern California. And such teaching of composition such as went on here was hardly more than the occasionally bringing in of some such well-known person.

Weber: Would there have been many composers, however, who were employed as teachers of theory?

Strang: Not really. In those days. Theory teachers were another class of people entirely; it never occurred to anybody to have a composer teach theory. That was a new idea which some of us went to great lengths to promote. And finally, over a period of thirty or forty years we got to the

³⁰ Carolyn A. Alchin, *Applied Harmony: A Textbook for those who Desire a Better Understanding of Music* (Los Angeles: Lyon & Healey, 1917). She served as professor of music at the University of Southern California; See Pauline Alderman, *We Build a School of Music: The Commissioned History of Music at the University of Southern California* (Los Angeles: Alderman Book Committee, 1989).

point so that in present practice one simply takes it for granted that musical theory will be taught by composers or people trained as composers.

Weber: In which thirty or forty years?

Strang: Using composers in that fashion probably didn't start until after the [Second] World War, and it didn't amount to much for some time. And perhaps the thing that kicked it off was the revision of the program at Juilliard [School of Music} after the war, when they developed a new curriculum in which music history, theory, ear training, literature, and the whole bit were sort of thrown into a single category and taught as one big package.³¹ When that happened, they found that the only people who could teach the thing successfully were composers. And so Juilliard gradually began assigning composers to the teaching of the literature and materials block, which consisted of half of the work which students did over a period of two years. This was the beginning of the serious hiring of composers for teaching in universities—it's really only since the war that the idea of having composers teach theory has become commonplace.

Weber: What about someone like [Ernst] Toch, or such as Schoenberg at UCLA, what status did he or other composers have in relationship to composition?

³¹ "Juilliard: A Brief History," <https://www.juilliard.edu>.

Strang: Well, let's take it more or less in order. In 1935 Schoenberg came to USC mainly because of his European reputation, and very few people had any particular idea about his music or about what he could or should teach. And so he was more or less thrown into a situation where he was expected to teach more or less traditional things. He was assigned a course in musical analysis in which case he analyzed the Beethoven Sonatas. And, of course, for counterpoint he taught the traditional species, the Fuchs type that came out of the German model.³² He would also be given a course in composition, but for the most part even with a man of Schoenberg's prominence there would never be more than five or six people available for a composition class.

Weber: Was there a precedent for his teaching composition?

Strang: Do you mean around here? Hmm. Yes, there had been composition teachers. But I can't remember a name who would give some idea of the prominence of the people who may have been doing it. I can't remember a single name of anyone teaching composition prior to Schoenberg's arrival. He taught these more or less traditional packages, and when he went over to UCLA in his second year here he was again

³² Johann Joseph Fux (c. 1660-1741) was an Austrian composer, music theorist and pedagogue whose treatise on counterpoint, *Gradus ad Parnassum* became the single most influential book on the Palestrinian style of Renaissance polyphony.

teaching primarily analysis, counterpoint, and composition. And this was terribly frustrating to him because the students had very little background, very little knowledge of the literature. The amount of academic time assigned to these courses was so small that it was a tremendous struggle for him to find any way of working with it at all.

So, of course, he began developing his own ways of teaching the content of the courses, and eventually he was teaching courses in composition. But this was quite unlike anything that he had to do in Europe, because in those days you were unlikely at an undergraduate level to get a course in composition which was expected to meet the normal class size standard. In those days you expected the class to have thirty students in it, even at the university level. So, he might be faced with a beginning composition class with thirty students. And, of course, since all he had taught was either on an individual basis or in master classes, which was a completely unanticipated kind of situation. And again, he simply got to work and found ways of doing it. When he was at the University of California [Los Angeles] he was a regular teaching professor. And he was expected to carry the standard teaching load and to maintain classes which met the standard class size criteria. In other words, there was no special position for Schoenberg as a composition teacher. He was expected to teach both on the undergraduate and the graduate level. He was expected to teach beginning theory and advanced composition, whatever came along. In short, this was an undifferentiated general university-type position, with no particular consideration of the

fact that you had here a unique and exceptional person who was, perhaps, the most important living composer.

Weber: But did he have a reputation as a composer here?

Strang: Yes, he already had a reputation when he came to UCLA.

Weber: As a composer?

Strang: As a composer, yes, but he had no reputation as a teacher. He did some conducting and so on; keep in mind that he faced a hand-to-mouth existence financially. He could barely get by on his university salary but he supplemented it a little with occasional conducting engagements. These were not likely to be very lucrative, they were very likely to be with a WPA [Works Progress Association] orchestra or something of that sort.³³ But he did at least succeed in getting some of his earlier works performed, with him at the baton. He would be paid small fees for this but it wasn't enough to really supplement his income very much. As always there had been the case where students were available that there was some private teaching. And this was true with Schoenberg, it was true with almost all of the European composers who

³³ The Works Progress Administration was a New Deal agency which employed millions of job-seekers, mostly unskilled men, to carry out public works projects, including the construction of public buildings and roads.

were in Southern California in that period. They did a certain amount of private teaching, and the students were mainly people from the media, from motion pictures or from radio or from some such source. The students that went to Schoenberg or [Ernst] Toch tended to be rather prominent people in that field, people like George Gershwin or a number of the younger American composers in the movie field—David Raksin, for instance, people of that kind.³⁴ And Schoenberg very frankly took these students as a money-making proposition. He used to charge the motion picture composers \$25 a lesson, and in 1935 \$25 a lesson was astronomical.

And they paid it gladly. Alfred Newman, music director for United Artists, took lessons from him off and on for years, even though they were accomplished composers in their own fields who wrote rapidly and facilely and who made large amounts of money. But Newman continued to do this for years because he felt that this was one way in which he could lend support to the master. He couldn't exactly offer him charity, but he was glad to pay these relatively high lesson prices, because this was one way of making his contribution.

³⁴ George Gershwin, born Jacob Bruskin Gershowitz (1898–1937) was a painter as well as pianist whose compositions spanned both popular and classical genres. David Raksin composed more than 400 scores for movies and television series but is remembered best as the author of the haunting theme for the 1944 movie *Laura*.

Weber: Do you think that the presence of Schoenberg and then Toch and Ingolf Dahl to some extent introduced the role of the composer as a teacher of composition in universities?³⁵

Strang: I think he really must have had considerable influence. Now, Ingolf Dahl was a different proposition.³⁶ You have to remember that when he came here he was unknown, completely unknown. He had been in Switzerland at the time, and he had some small local reputation as a conductor, but no real reputation as a composer at all. When he was employed at USC he came in at the bottom of the totem pole, just like any other young person would. Still, the fact that he had European background made it easier for him to get a job on a university staff than it would have been for one of us who had an American background, because that still had a meaning. You had a built-in reputation if you so much as got your training in Europe. This already gave you an advantage. But Ingolf really was just a young fellow who got hired on the usual probationary basis and made his way in the same way through the academic hierarchy as any of the rest of us. Since you've known Ingolf and his work, he had a rather considerable reputation both as a composer and a conductor. But when he first came here he sort of came and sat at my feet because I was Schoenberg's assistant. And then later

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³⁶ Ingolf Dahl (1912 -1970) was a German-born American composer, pianist, conductor, and educator who became professor of music at the University of Southern California in 1945.

on, another fifteen years or so, Ingolf, became a member of my doctoral committee, making sort of a flip-flop in our relationship.

Weber: But you think Toch and Schoenberg then started something that someone like Dahl was able to take advantage of?

Strang: Probably. I don't know whether it was that concrete or not, it's awfully difficult in retrospect to know how much weight to give things like that. The Alchin Foundation of course kept on bringing to USC people of prominence for relatively short periods of time. This was the sort of thing that happened when Toch was available; they got Toch as Elgin Professor, and from then on there gradually developed the active teaching of composition, just as the hiring and keeping of young Americans began [at universities]. Oddly enough, I think, Ingolf sort of opened the way for young American composers like Halsey Stevens to come along and get in and get started.³⁷ And of course, then as time passed, it gradually became the thing that you hired composers to teach composition. But certainly not in the '30s, since the whole situation for young composers was such that it never even occurred to one of us to make an application for a position in the university [University of California, Los Angeles]. It was so obvious that there was no chance of

³⁷ Halsey Stevens (1908 – 1989) was educated at Syracuse University and the University of California, Berkeley, studying with Ernst Bloch. He taught primarily at Syracuse.

getting a job that we wouldn't even think of making an application for a job like that.

Weber: But were there any other people who taught at UCLA who also happened to compose?

Strang: Well, at the time Schoenberg was there, there literally was not a single composer on the UCLA faculty. It was effectively a music education school.

Weber: Not a musicological school.

Strang: Not a musicological school--they didn't even have a musicology program. You have to remember that UCLA grew out of the old teachers college that used to occupy the campus where Los Angeles City College is now, on Vermont Avenue. And, yes, in 1936, when Schoenberg and I went over to UCLA, it was strictly just a teacher training program.

Weber: And less powerful than what you describe at USC?

Strang: Oh no, it was much less so. About that same time they began to develop musicology; they hired a young, recent PhD from Columbia University by the name of [Walter] Rubsamen in 1937.³⁸ And really

³⁸ Walter H. Rubsamen (1911-1973) was born in New York City, earned his PhD at the University of Munich, and became professor of music at

Rubsamen was the first thoroughgoing musicologist on the UCLA faculty. He in effect started their whole musical logical program.

Weber: Were there any composers who like Toch were followers of Schoenberg?

Strang: Let me see; Schoenberg was retired, I think, in '46 or '47, and I don't really remember just exactly what happened around that period. A few years later they began to get some composers; John Vincent came along, that must have been around '48 or '50. At that point UCLA did begin in a gingerly fashion to hire some Americans who were composers, sticking pretty much to the rather conservative, not too adventurous type of composers.³⁹ By around 1950 UCLA had taken on a pretty definite musicological cast, and the musicologists who had some say, and were hired, weren't anxious to hire anyone who would rock the boat. And so the composers that were hired were mostly...Well, I would consider them conservative composers.

Weber: When do you think that faculty composers began at USC?

UCLA in 1955; see https://en.wikipedia.org/wiki/Walter_H._Rubsamen.

³⁹ John Vincent (1902-1977) was born in Birmingham, Alabama and studied at the New England Conservatory of Music under Frederick Converse and George Chadwick. He in effect succeeded Arnold Schoenberg in the department at UCLA.

Strang: Well, I never thought much of the Alchin books. And in fact, I thought they were a lot of nonsense, I particularly resented the worshipful way in which some of Carolyn Alchin's students sort of hung onto her coattails and insisted that the only way to teach the subject was by following precisely the old girl's procedures.⁴⁰ But I must say that her heart was in the right place, since her establishing that foundation, devoting money to the furthering of composition on the USC campus, was probably the single most influential factor behind it. There was only one other situation in the Pacific Coast area that I knew about, which really did much to further composition. Somebody had established a prize back in the '20s on the University of California campus in Berkeley that was called the Prix de Paris.⁴¹ Each year, somebody in field of composition was subsidized to go for one or two years to work in Europe. That sort of produced some emphasis on composition on the Berkeley campus, enough so that, for instance, by 1935 they were bringing Roger Sessions to Berkeley.⁴² And in fact, that was when I was to have worked with Roger in 1935, though I then got the chance to come down here, having to back out on that when I came to study with Schoenberg. For a while Roger was a little miffed about it, although later on we became very good

⁴⁰ On Alchin, see Alderman, *We Build a School of Music*.

⁴¹ The George Ladd Prix de Paris: see <https://music.berkeley.edu/graduate-fellowships/>.

⁴² Roger Sessions (1896-1985) was a composer of symphonic and instrumental [music](#) who worked with Aaron Copland and other composers in educating the public to an appreciation of modern music.

friends. There was at that time beginning to be some emphasis on composition in Berkeley, and they've had a series of composers more or less working there for a long time, like Joaquin Nin.⁴³

Weber: Where do you think it came from in Berkeley?

Strang: I don't know. When I was at Berkeley, which was in 1929, I did a year of graduate work, and there was one theory teacher, E. G. Strickland, who did teach composition and who did some composing, though he was never well enough known for his name to mean anything today. But he did compose and he did teach composition. And then there were a couple of young men who got the Prix de Paris--Charles Cushing for example--and another young fellow along in the early '30s who went to Paris, studying with Boulanger and came back and became a junior member of the faculty. And so, [composing as a career] sort of developed but in a way it tended to grow out of the Prix de Paris.

Weber: Which of course grew out of the Prix de Rome in Paris itself.⁴⁴

⁴³ Joaquín María Nin-Culmell (1908 -2004) was an internationally known Cuban-Spanish concert pianist and composer who became professor of music at UC Berkeley (see his papers at the Hargrove Music Library).

⁴⁴ The Prix de Rome or Grand Prix de Rome was a French scholarship for arts students, initially for painters and sculptors, that was established in 1663 to support a student to study in Rome for three to five years.

Strang: You see it was the same sort of an idea whereby some wealthy person got the bright idea that this would be a good thing for young Americans, and so he set up this foundation.

Weber: So, in both cases, on the East Coast and in Berkeley, patronage came from private figures.

Strang: I suspect this is true. I never really thought to take this whole thing very seriously, and I never really thought about it. But as we sit here talking it seems to me that I can't really trace all this to any other sources. It's the old story that the private patron has been back of an awful lot of things in art for centuries. And in the '20s and '30s the musical world in America was still pretty much beholden to this kind of patronage, personal patronage. In other words, if we look at the position of the foundations today, they now occupy the role which the private patron still occupied at that time. I suspect that in the ensuing thirty or forty years that the private patron has been for the most part replaced by foundations.

Weber: Though remaining in curious form with Paul Fromm.⁴⁵

Strang: Yes, but of course Fromm started a foundation, and he's still very active in it personally, whereas apart from that it seems to be that

⁴⁵ The philanthropist Paul Fromm (1906–1987) was a Chicago wine merchant and prominent performing arts patron whose endowment now supports an archive at Houghton Library, Harvard University.

the wealthy patrons are not so personally concerned. Now, Elizabeth Sprague Coolidge was another patron of that period who spread her largess more widely but who is responsible for a great deal, subsidizing chamber music and particularly maintaining the Belgian Pro Arte Quartet and several others of that period. She commissioned contemporary works for string quartet to be played by her so-called in-house quartet that had very important influence during that period.⁴⁶

Weber: In fact, I was interested to hear on the other tape how you talked about a quartet playing the Beethoven and the Schoenberg quartets together.

Strang: Oh yes, the Kolisch Quartet.

Weber: The Kolisch Quartet came to UCLA for concerts. What kind of role did Elizabeth Sprague Coolidge play in that context?⁴⁷

⁴⁶ Founded by conservatory students in Brussels in 1912 the Pro Arte Quartet became one of the most celebrated ensembles in Europe in the first half of the twentieth century and was named Court Quartet to the Queen of Belgium.

⁴⁷ The Kolisch Quartet was founded in [Vienna](#) in the early 1920s as the New Vienna String Quartet for the performance of [Schoenberg](#)'s works but disbanded in the [United States](#) during the early 1940s.

Strang: Well, Elizabeth Sprague Coolidge spread herself more widely than many a patron. In the first place she established the Elizabeth Sprague Coolidge Foundation at the Library of Congress, and she has continued to subsidize chamber music there. But she tended to place the string quartets she was subsidizing in colleges and universities. For eight or ten years she spent all her summers at Mills College in Berkeley, and each summer she would bring a quartet. And for several years it was the Belgian Pro Arte [Quartet], and there were also some other quartets.

Weber: In the '40s?

Strang: Also in the early '30s as well as the early '40s. I happen to know about it from '30 to '35 or thereabouts because I lived nearby and went to all the concerts. That's where I first knew Elizabeth Sprague Coolidge. Each summer she would subsidize a whole series of concerts and pay for the quartet in residence. But she did this on a less institutionalized basis all over. She would occasionally put on a series in the eastern universities, and she would put on a series at UCLA or Berkeley or the University of Washington. Wherever she had a whim to go, she would tend to take a string quartet along and put on a series of concerts.

Now, the fact that the series of Schoenberg-Beethoven concerts took place originally at UCLA was simply due to the fact that Schoenberg was there. You see, she was setting this up to honour Schoenberg as well as Beethoven. And so, since Schoenberg was associated with UCLA at the time she arranged for that series of concerts to be given first at UCLA.

Then subsequently they were repeated at Stanford [University] and Berkeley and the University of Washington and a number of other places, all under her support.

Weber: Were there any other private parties who were commissioning in the Los Angeles area?

Strang: Well, yes, there were some isolated commissions. They were pretty hit or miss, as a matter of fact I can give you an anecdote which is not all that untypical but gives you some idea of how hit or miss this sort of thing was. In the summer of—I think it was '42, maybe '43—my wife and I went up to Reno to visit a former pupil of mine who had moved up there because the taxes were less there, and he had just inherited a lot of Kansas oil land. And so, he was living up there and we went up to visit him for a week or so and had dinner one night, and we were talking about Schoenberg and the fact that he was just barely getting by, how low his salary was, and so on, and how much trouble they were having making ends meet. My wife said to this young fellow [Henry Clay Shriver, a student of Strang's], "why don't you offer him a commission?" Why don't you give him a stipend of some sort?" And Henry said, do you think he'd accept? And I said, well, I'm sure, Henry, that Schoenberg would be glad to get something of this sort. So we asked, how much? Well, of

course, we being pikers and thinking small said, well, \$1000. Well, why not?⁴⁸

And so when we came back, we went to the Schoenbergs and told them that Henry would like to offer him a commission for a thousand dollars to do whatever he wanted to do while he was working at that time —wasn't that the Piano Concerto? And I think if you look that up, you'll find this dedicated to one Henry Shriver. And that's how Schoenberg got that commission because we just happened to be talking idly at dinner one night in Reno. And Henry Shriver had the money to throw around and so he would not have thought of doing it, he would have been too hesitant to offer this if we hadn't brought the subject up.⁴⁹

Weber: What about Oscar Moss?

Strang: Oscar who?

Weber: Moss.

Strang: Oh, Oscar Moss.

⁴⁸ Henry Clary Shriver Collection, Arnold Schönberg Center, Vienna, <https://www.schoenberg.at/index.php/en/archiv-2/sondersammlungen?id=747:satellite-collection>.

⁴⁹ It was composed in 1942; see [wikipedia.org/wiki/PianoConcerto of Schoenberg](https://wikipedia.org/wiki/PianoConcerto_of_Schoenberg).

Weber: Did he commission anything?

Strang: The Mosses mainly put their money into the Monday Evening Concerts and that sort of thing.⁵⁰ Now, I really can't answer that question because I was never well acquainted with either Oscar or Sadie Moss. They put an awful lot of money into having contemporary music performed around here. Whether they did any commissioning or not, I just couldn't tell you, I don't know them that well. But commissions in those days were really not very frequent, you know, it's true that certain composers made a business of commissions and subsidies. Roy Harris and Aaron Copland got quite a number of them.⁵¹ There were a lot of composers who went to the McDowell Colony and who were otherwise helped in various ways after they had acquired a reputation.⁵²

⁵⁰ The Monday Evening Concerts began in 1939, giving classical and modern chamber music under the leadership of Peter and Frances Mullen (see Dorothy Lamb Crawford, *Evenings on the Roof: Pioneering Concerts in Los Angeles* (Berkeley: University of California Press, 1995) 102-105; for recent activity, see <https://www.sfcv.org/articles/music-news/monday-evening-concerts-taps-avant-garde-history-2019-20>).

⁵¹ Aaron Copland (1900-1990) achieved a wide and deep reputation, seen by critics and his peers as the "dean" of American composers.

⁵² The MacDowell Colony, founded in 1907 in Peterborough, New Hampshire, was a center where artists and writers gathered under the leadership of the composer Edward MacDowell and his wife, the pianist and philanthropist Marian MacDowell; see

Weber: Did Harris get many of his commissions there? Didn't he go there?

Strang: No, no, no. Harris wasn't thought of as being a West Coast man at all, you see, because from the time he went to Paris he only came back here casually, and it was only after he really had retired and there was sense that he returned to California. His activities were all centered in the East, mainly New York and Washington, DC—in DC mainly because of Elizabeth Sprague Coolidge, who practically supported him for years.⁵³

Weber: What determined the choice of any aspiring composer to stay here [California] or go to New York or Paris?

Strang: Well, I suppose a lot of it depended on the amount of ambition they had, how skillful they were or how interested they were in self-promotion. In those days, in the '20s, '30s, well up to the post-war period at least, you couldn't really get even a start as a professional composer without going either to Europe or to New York. Talk to [Milton] Babbitt sometime about that. Babbitt likes to tell about how he was a young Mississippi boy who had to make his way in the big city, and he still likes to classify himself as just a young, naive Mississippi boy who made good

<https://en.wikipedia.org/wiki/MacDowell>.

⁵³ Crawford, *Evenings on the Roof*, 28, 155.

in a big city.⁵⁴ So, almost all the people out here at some time or another got sucked into that one way or another. Henry Cowell, of course, went East, along with others out here at that time. Harris, of course, is the one who was a Westerner who went east.⁵⁵

About the only one who later made a considerable reputation for himself but who didn't get sucked into that was Harry Partch. I don't know whether Harry felt somewhat the way I did. I've always been inclined to shy away from the thing that one should do, you know, I've never been able to suck up to wealthy people and ask for commissions. And if the thing to do is to go to New York. That was the place I wanted to stay away from, and because you had to go to Europe to get a musical education, I didn't, you know. I've always been a sort of a negativist if it was the thing to do, and so I went in the opposite direction. So, the fact that I never went east is partly due to the fact that I didn't feel it was any reason why a composer should have to go to New York in order to make a reputation, and I'd rather get along without the reputation.

Weber: Did social tendencies in the '30s have anything to do with this?

Strang: I'm sure they did. But just how, in what way, is difficult to say.

⁵⁴ Milton Byron Babbitt (1916 – 2011) was an influential American composer, music theorist, mathematician, and teacher, particularly noted for serial and electronic music.

⁵⁵ Crawford, *Evenings on the Roof*, 32-33.

Weber: Was there any disillusionment with the upper-class sponsorship?

Strang: Oh yes. There was among all kinds of artists in those days a great deal of disillusionment with the establishment, so to speak. There was great distaste for this business of subsidies and having to make nice noises to some wealthy patron. All artists in that period I think were flirting with Marxism to some extent or were inclined to be sympathetic with the labor movement. We were doing all the wrong things at that time. You see, all the things which later became respectable, like supporting trade unions, heavens—it was just simply not acceptable at all for a writer or a musician or an artist to be pro-trade union, much less to belong to one, you were very suspect.

And, of course, later on, a great many artists were drawn into the red-baiting business and so on because they got involved, for instance, with things like the American-Russian Institute, which was promoting acquaintance with Russian music and literature. For instance, I belonged to teachers' unions at the time when this almost labelled you as a Red, especially if you belonged to the teachers' union and things like this. So, there were tendencies among musicians just as there were among all artists in those days to be sort of caught up in the social flux of the time and to adopt positions which were very much influenced by the prevailing social and political tendencies.

Weber: Where might have been some antagonism toward Harris, Copland, or people of that milieu, merely for the choices they had made?

Strang: Well sure, I think so. We sort of looked down our noses at them as being reactionaries even though they weren't really writing reactionary music. It seemed like that to those of us who were interested in 12-tone writing or the more advanced forms of contemporaneity. We considered them to be sort of four-flushers in the sense that we figured that the reason they weren't more advanced in their tastes, their materials, and their attitudes toward music was because they had to sort of guard their position with their wealthy patrons. They didn't want to get too far out, lest they might lose their subsidies. This was the way we would be inclined to feel about them or many people would be. So there was much more than just a rebellion in terms of purely musical things, since this was a period of rebellion. Sure, we were rebelling against the traditional music, the conventions, and the academicism of the time. Also, in so far as we had any political or social interests we were inclined to associate ourselves with the rebellious elements of the period.

Weber: Do you think it had anything to do with the tendency toward the Viennese school of atonal music, so that people in the area did not move clearly in the direction of the more French-oriented orchestra music?

Strang: Well, maybe in a way. In the teens and the '20s, after the First World War, Paris came to dominate the thinking of young musicians. You went to Paris rather than Berlin or Vienna if you were going to get training, and you went to Boulanger if you were a composer. By the time

my generation came along there was a reaction against this, but I think it was more than that. I don't think it was specifically anti-French or anything of that sort, it was simply that this was the thing that was accepted and therefore we were getting it, and so it just tended to push us toward the Viennese School. One of the things that probably pushed us toward the Viennese School was another reason why some of us never went to New York. At that time it was the League of Composers and the Pan American Association of Composers where contemporary music was being done, and they were largely dominated by the French-trained people.⁵⁶ And so again, those of us who were interested in the trends of the Viennese School felt sort of left out, even though I think we weren't actually, since I got performances in New York from those outfits. And I don't think that they were tending to discriminate against those of us who were interested in the Viennese School, but we sort of felt as though we probably didn't belong in that particular clique or set of cliques.

Weber: Were those organizations ever strong here?

Strang: Which organizations?

⁵⁶ The International Society for Contemporary Music (ISCM) was set up in Salzburg in 1922 to bring together composers and to promote the [cause of composition and performance of new music](#). The Pan American Association of Composers, founded in 1928, was dedicated to experimental music and its performance in the USA, Latin America, and Europe.

Weber: The League of Composers?

Strang: Not really There were from time to time efforts to establish West Coast branches, and after the Second Word War, in the '50s, they finally got ISCM Branches started here, which had their ups and downs.

Weber: Only after the war?

Strang: But really there was no ISCM out here that was worth mentioning until after the [Second World] war. The League of Composers had some members among people out here, and the Pan American Association never had any Pacific Coast affiliations. To a degree the [San Francisco] New Music Society [people of the *New Music Edition*] carried on some of the same functions out here. It was, well, one thing you have to say for Henry Cowell, that the New Music Society was really not tied to any particular trend or clique or tendency--it was so wide-open that you could only describe its approach as eclectic.⁵⁷ There were no political or social or aesthetic implications in the New Music Society, just “let’s get it out and take a look at it, whatever it is”—you know, so it was completely wide open.

⁵⁷ Henry Dixon Cowell (1897-1965) was an American composer, music theorist, pianist, teacher, publisher, impresario, and the husband of the ethnomusicologist Sidney Robertson Cowell.

Weber: What other persons aside from you and Cowell were active in it, aside from the publications?

Strang: In the early days, there were two women in Carmel, Dene Denny and Hazel Watrous, who made their living through an art gallery in Carmel—they did a great deal of work.⁵⁸ There were also another couple of women in San Francisco, a violinist and a pianist. Well, whose names have slipped beyond me at the moment—but they did a lot of work. Ray Green, leader of the American Music Center in New York, was around for a while, but he didn't actually do much with it.⁵⁹ But as far as the musical side of the thing is concerned, it was almost entirely Henry [Cowell] up to the time I took it over, mainly because I was the only person left when Henry went to San Quentin.⁶⁰ So, it was really pretty much of a one man-

⁵⁸ On Denny and Watrous, see

<http://carmelbytheseaca.blogspot.com/2018/06/>.

⁵⁹ Ray Burns Green (1908-1997) was raised in San Francisco, went to the University of California, Berkeley, studied with Ernst Bloch and Darius Milhaud, and established the American Music Edition; see <http://www.bruceDuffie.com/green.html>. The American Music Center collection of score manuscripts, dating from 1935 to 1996; see <http://archives.nypl.org/mus/22394>.

⁶⁰ In 1937 Cowell was imprisoned In San Quentin State Prison for acts of homosexuality with a minor; see Michael Hicks, "The Imprisonment of Henry Cowell," *Journal of the American Musicological Society* (1991) 44 (1): 92-119.

proposition on his part, with various willing helpers who volunteered to do a lot of the dirty work, addressing envelopes in the mailings, running the concerts, and making the reservations for places to do things, and all that. There were a lot of people around, maybe not a lot, but really a number of people around who did this kind of thing.

And at that time Henry depended very largely on people like [Nicholas] Slonimsky, John Becker of Minneapolis, Richard Donovan, a group of four or five such people who kept referring things to *New Music [Edition]*, whom he consulted about publications.⁶¹ I formalized things when I took over, I formed an editorial board, including several of these people. And from the time I took it over there was more or less a formal committee. But none of these were people from out here, they were in the East but in John Becker's case in the Midwest.

Weber: But it was not really a Southern California operation.

⁶¹ Nicholas Slonimsky was a Russian-born American conductor, author, pianist, composer and lexicographer. On John Becker, see Don C. Gillespie, "John Becker, Musical Crusader of Saint Paul," *Musical Quarterly* 62 (1976): 195-217; On Richard Donovan, see the Richard Donovan Papers, Yale University Library. Richard Donovan was a composer, teacher, conductor, and important musical force in the New Haven area and in the American Composers Alliance; see his papers at the Yale University Library.

Strang: It wasn't a Southern California operation. You see, the New Music Society was headquartered in San Francisco, its concert activities were mainly in Carmel and San Francisco, and occasionally in Los Angeles until I took it over. And then because I was in Los Angeles and because the printer, the Golden West Music Press, had moved to Los Angeles. And so this was the only thing we could do, since it was all volunteer work. The Golden West Music Press even stored the stock for us at no cost to us in their plant.

Weber: The name of the family who ran it, I believe, was Langering.

Strang: Yes, Langering, Herman Langering.⁶²

Weber: Did it effectively subsidize all this to some degree?

Strang: To some extent, yes. They, to the extent that for instance during a considerable part of this period they handled the mailings, they stored the stock, they of course did the engraving and the printing and so on, yes, they contributed a great deal.

Weber: Did they participate in new music concerts in the area?

⁶² Herman Langering Music Publishing Files, Music Division of the Library of Congress. **See**

<http://infomotions.com/sandbox/liam/pages/httphdllocgovlocmusicceadmusmu011015.html>.

Strang: No, they were concerned only with the publication side of the thing.

Weber: What drew them to all this, how did they come to know about it, was it through Cowell?

Strang: Well, I'm not sure just how Henry originally got tied up with the Langingers. It was in San Francisco, and it must have taken place in the early '30s. The Langer family had been in Vienna, and sometime in the early '30s they had moved to San Francisco. They even brought their old stone lithograph music press, which was about twelve feet long, and also a half-ton lithographic stone, which went trundling back and forth through the rollers. The printing was done on one of those ancient flatbed lithographic presses. They brought that with them, located down in the industrial district of San Francisco. And they came over from Vienna on a shoestring, they had nothing just this group of four brothers.

Weber: Had they had any connection with, say, Universal Editions in Vienna?⁶³

⁶³ Founded in Vienna in 1901, the Universal Edition was originally intended to provide the core classical works to the Austrian market, but the firm soon expanded to become one of the most important publishers of modern music.

Strang: Not in my knowledge. But whether somehow or other Henry knew them in Vienna, I can't say, or whether he knew them over there. I first got acquainted with him about 1932 when I was already working with the New Music Society. And I used to occasionally do some proofreading, or what have you, down at the press, south of Market Street there. But just how Henry happened to get connected with them the first place, I don't know.

Weber: So, they had no connection with the Viennese composition school?

Strang: Not at all, no connection at all. Once in a while Herman, the brother, who mostly met the public, was the chief of their engraving operation. Herman would show up at concerts occasionally when we put them on, but the Langinger boys never had anything to do with the concerts.

Weber: Now, could we switch back to the basic kinds of occupations for composers at that time?

Strang: All right.

Weber: Did many make their living by performing in churches or in concerts or in other ways?

Strang: Yes, there was a certain number of them who were professional musicians of one sort or another. A conspicuous case of that was perhaps Adolph Weiss, who was a bassoonist, a first-class bassoonist, who played in the studios for many years; he played in the Los Angeles Phil for a while.⁶⁴ And, of course, he was one of Schoenberg's European students; he studied with him in Berlin. Leonard Stein, of course, was an excellent pianist and still is. Leonard never really composed in any serious sort of way. But I always think of him as part of the whole business because he was so closely associated with the theoretical works and so on.

Now let me see who else I can think of now who was around. There was Harry Partch,⁶⁵ who did anything and everything, practically, musically speaking. He was a field hand, he was a hobo, he lived for quite a long while in a chicken ranch in Petaluma, because they let him use one of the old chicken sheds for his instruments. For many years when Harry was first building those instruments they were stored in this chicken shed over in Petaluma,

⁶⁴ Adolph Weiss (1891-1971) was a composer who played bassoon in the Chicago Symphony Orchestra and the San Francisco Orchestra: his music was once described as being "fuller of crabs than Chesapeake Bay."

⁶⁵ Harry Partch was also a music theorist and creator of musical instruments; he composed using scales of unequal intervals in just intonation and was one of the first composers in the West to work systematically with microtonal scales.

Weber: Were there other Harry Partchs, in a sense? Were there many people who took that route?

Strang: Well, I think probably most of the people who pretended to be composers were non-professional in that sense, that is to say, they would make a buck any way they could, they had rarely had anything to do with music. There were a certain number of them who performed the equivalent of the '60s drop-out. There was a colony of musicians and artists at that time up around the town Oceano, just South of Pismo [Beach], where the big dunes are. There was Lou Harrison, who was there at that time and--oh, the silence guy.

Weber: John Cage?⁶⁶

Strang: John Cage, yes, John lived for a year or so up in Oceano. And these people would go and scrounge vegetables that were thrown out in the markets and they would go out occasionally to the farms and pick fruit and they just simply got by any old way they could eat, they lived in shacks and lived on nothing.

Weber: So this was really a major alternative...

⁶⁶ As a key figure in the post-war avant-garde, John Cage was variously a music theorist, artist, and philosopher. He served as a pioneer of indeterminacy in music, electroacoustic music, and non-standard use of musical instruments.

Strang: It was really a major alternative because your academic route was not available. There were some composers, but not people that we would think much about now, who got by on church jobs. But they tended to be people who composed in a fairly traditional, conservative fashion. And so they weren't really feeling any grave difficulties. I can't offhand give you names, or I can dig a few out.

Weber: Peter Yates mentioned the concerts they had at the First Congregational Church. Was there much contact between these church-employed musicians and those employed by the church?

Strang: No, there wasn't. Those of us who consider ourselves as being brash and radical composers, advanced composers, didn't have much use for them, and we didn't have any contact with them to speak of. Actually, some of them I ran into later in university circles and so on, and I realized that they had been going along at the same time, but during the period I didn't know them. There was a pretty complete break between the musical establishment and the young composers who were writing so-called advanced music.

Weber: But they seem to have gotten a base of a sort in the establishment, around Yates and all. Was that true?

Strang: Not really. Who for instance?

Weber: People who performed for Yates?

Strang: Not much, no. The people around Yates performed mainly what we would call “mainstream advanced” composers, that is Ives, Schoenberg, Stravinsky. This whole trend had no particular allegiance to a particular side of things. But the American composers who were performed on the Evenings on the Roof programs were the avant-garde composers, not the people who played in churches.

Weber: But among these American avant-garde composers, did this include the people up in Oceano?

Strang: Well to a degree yes, and Henry was quite adept at digging out those people from wherever they happen to be, Lou Harrison’s a good example. Of course, Lou later on got established in Watsonville [east of Santa Cruz]. And he was making his living completely outside of music there for a long, long, time, among the artichokes in Watsonville. But the people of that sort, well, they did the same sort of thing that people who weren’t necessarily composers did. Now for instance, you talk about Yates, he’s a good example. He was a County employee for twenty-five years while he was also the principal entrepreneur for contemporary music in the Los Angeles area.

Weber: How high an employee was he?

Strang: Well, he was just a social worker.

Weber: He was a conventional social worker?

Strang: Yeah, sure.

Weber: Was he also a supervisor?

Strang: No, well, he probably had some such responsibilities toward the end, before he went to Buffalo [State University of New York]. But during all that period, no, he was just an ordinary County employee. He was working in the office and doing the usual things that people in Social Services Departments do--writing poetry, promoting concerts of contemporary music, writing for *Arts and Architecture*, writing criticism, and so on.⁶⁷ But the daily expenses, the bread and butter and all, came out of the County of Los Angeles through that whole period for Yates.

Weber: Did he have any independent wealth to be able to live on?

Strang: No, but there was Mrs. [Grace Stewart] Mullen, his wife's mother from Redlands, the one who started the Redlands Bowl Concerts, and who was the chief sponsor and the chief guiding spirit in that whole

⁶⁷ *Arts & Architecture*, a magazine, was at the leading edge of what was happening in architecture, art, and music in the 40s, 50s and 60s.

Redlands Bowl thing for about thirty-five years.⁶⁸ There was some money in the Mullen family, but actually they lived very simply during that whole period. They never had a new house to my knowledge in the whole of their lives. They had a little old shack down there in the Silver Lake District, which was a wreck when they took it over and then gradually rebuild it bit by bit. Finally they put up a studio for Frances on the roof, and that's how the Evenings on the Roof got started.⁶⁹

Weber: Did Mrs. Mullen have much to do with what Yates did?

Strang: Nothing at all, she had no sympathy for it, she had no use for contemporary music. And she had very little sympathy for her daughter, who insisted on playing things like the Concord Sonata.⁷⁰ Mrs. Mullen never had any use for any form of contemporary music. She was strictly a conservative socialite type of person—a kind of a small-scale Elizabeth Sprague Coolidge. Now, Elizabeth Sprague Coolidge had foresight in seeing that the thing to do was to sponsor contemporary composers—whether she liked the pieces or not, since a lot of the stuff that people wrote for her she didn't like a bit though she still promoted it. Elizabeth Sprague Coolidge was quite a gal!

⁶⁸ https://en.wikipedia.org/wiki/Redlands_Bowl and “The Redlands Bowl”, *Guide to the Performing Arts*.

⁶⁹ See Crawford, *Evenings on the Roof*.

⁷⁰ Charles, Ives, Piano Sonata No. 2, Concord, Mass., 1840–60.

Weber: Were there many people like yourself who got into the small community colleges?

Strang: Oh, let me see. Not precisely in the way I did—you see, my situation was the same as any of these others, that is, I made my living by any means I could get. I copied music, I was Schoenberg's assistant, and I taught. Well, the teaching for me was simply a means of making a living. I didn't consider this as part of my composing. I might just as well have been teaching engineering or math or something else as music as far as any connection was concerned. It just happened that I got into teaching music, and I was one of the early ones who did. But that was strictly a routine music theory job, you see at the junior college level I never had the chance to teach composition.

Interview 4 with Gerald Strang: Led by William Weber

Weber: Well, I thought this session would be best to look forward to the émigrés in general, the highly effective composers who came from California. Perhaps my question to start with is whether you think that prior to 1933 or '34--with the first of this influx--there had been many of the same kinds of people coming or not.

Strang: Well, practically none, I would say, the only people who could be related with that network were two people who came in for the motion picture area. Some of them came from German movies, largely because of the economic problems that were involved in the inflation and all this, which interfered with operations in Germany. And so there were a few people who had made names for themselves in the German motion pictures who were brought over, usually to do a single picture, something of that kind, and some of them stayed, This applied as soon as sound pictures came in, also to musicians who came early—for example, [Miklós] Rózsa and [Hugo] Friedhofer. Some of the early people liked the freedom which came along with it, arriving independent of the movement of the displaced people, who were called the exiles.⁷¹

⁷¹ Miklós Rózsa (1907-1995) was a Hungarian composer who was trained in Germany and became active in France, the United Kingdom, and the United States, with extensive sojourns in Italy from 1953. Hugo Wilhelm Friedhofer (1901-1981) was a cellist born in the U.S. who was best known for his motion picture scores for Max Steiner, Erich Wolfgang

But it probably is true that great many musicians all over the United States certainly showed European names. I doubt whether you could tell whether they were first or second generation or recent... [Weber's question not recorded] Well, that's quite possible because after all, the great many of the performing musicians up through almost the whole first half of the century were of European origin or were trained in Europe. And so far as performing musicians are concerned, there were a great many with foreign names or who were born in foreign countries and who came in as immigrants just like any other people of foreign origin. But I doubt whether that had much to do with the movement in Europe.

Well, on the other hand, there were certainly a number of people who came over here at the time of the 1905 revolution in Russia, and of course it didn't affect musicians as much as it did some others. But there was a tremendous influx of Armenians just after the war, when the Turks drove all the Armenians out of Turkey. That was the time when the Armenians came in and settled up along the San Joaquin Valley and acquired a reputation that was somewhat suspect because they were so frugal and so hard working and so on, that indeed, they began to displace some of the people in the San Joaquin Valley.

Weber: Do you think that there were no major movements of artistic population before 1933?

Korngold, and Alfred Newman.

Strang: Well, there undoubtedly was a tendency to import musicians to come here, as in all the other countries that were beginning to develop a musical culture. They were going to Australia, they're going to South Africa, they were going to wherever there was a cultural development. And so they certainly were drawn in here for that reason. I think it's not unnatural to find here a large number of foreign-born musicians, those who played in the symphony orchestras as well as other kinds of musicians. And, of course, some of them were drawn here as part of the motion picture industry, siphoning talent off from Europe. That was certainly true just as we were drawing technicians and doctors and other types of people for whom we didn't have adequate numbers, and for whom we didn't have training in the United States. So it was a natural thing that most of the performing musicians for that period had been at least European-trained. And a lot of them were of European origin.

Now, when the 1933 immigration started, it took on a totally different character. It took on the character of a higher intellectual level, drawing more of the creative as opposed to the performing artists. A great many people were forced out of Central Europe as Kultur-Bolsheviks even though they may not have been of Jewish extraction—indeed quite a lot of them were that. It was of course another thing which characterized the movement around 1933 to '40, the very high proportion of Jewish people who came in, the direct result of the policies of Hitler and Mussolini, which forced Jews to escape from Europe to come over here. Of course, there had been a high percentage of Jewish musicians in any case, as had been true everywhere prior to that time.

The character of these people who came during the period from 1933 to 1940 was one of high-level intellectuals and creative or directing artists—directors, writers, composers, philosophers—all sorts of people of that kind. Some of these people who seemed to settle in the Los Angeles area, though not exclusively there—we got far more than our fair proportion of this kind of immigrants coming in during that period.

I think I may have said on the previous tape that I'm sure that part of it was simply a climatic matter. The Europeans from all over had come thought of the Riviera, the borders of the Mediterranean as a wonderful place to relax, with highly desirable climate, and so they found the Los Angeles area along the ocean somewhat similar along the ocean. And a great many of them wound up in Los Angeles simply because it had a kind of a Mediterranean atmosphere about it. Of course, after a few years gradually others came, as many tended to migrate here too. I know this was true, for instance, since people like [Arnold] Schoenberg and [Karl] Popper were always remarking about how similar it was to what they had left.⁷² I would say that because, due to that high level of talent, they didn't really impinge very directly on the average person here. They were people who were known in university or art circles or in the motion pictures at the higher echelons, and so on, but they were fairly well isolated from the general population. I don't think there was much

⁷² Sir Karl Raimund Popper CH FBA FRS (1902-1994) was an Austrian-born British philosopher, academic and social commentator, one of the twentieth century's most influential philosophers of science.

opposition to them or much feeling about them simply because they hardly existed for the average person they hardly existed.

Weber: Was there much anti-Semitism?

Strang: Well, we had our share of anti-Semitism before they came along. And there were certainly some people who had their anti-Semitic feelings reinforced. And perhaps because I spent a good deal of time among the Jewish immigrants, I may not have been exposed to what anti-Semitism was, but I never felt that they were seized with any particular anti-Semitism beyond what was just the normal level of it in our area. This may be a completely false reaction because, as I say, I had very wide contacts among them, and may not have been exposed to anti-Semitic sentiments from other people. Generally speaking, they were either ignored or they were accepted with considerable admiration simply because of their high artistic level. A person was not going to object to the presence of a world-famous conductor like [Otto] Klemperer or a world-famous artist or writer, simply because he was Jewish.⁷³ So even though some felt anti-Semitism, but I'm not sure whether this was actual or whether this was due to the fact that they had been sensitized. And

⁷³ Otto Nossan Klemperer (1885 -1973) was one of the most prominent German-born musicians to arrive in the US; as an orchestral conductor and a composer, he was seen to be the last of the really great orchestral leaders of his generation.

most of them were likely to see an anti-Semitic element in almost any kind of contact they ran up against.

Weber: Did their arrival bring up any serious competition with people who were already here?

Strang: Well, again, all I can say is that I never felt that it did. I can see very good reasons for that, since there certainly was competition, there certainly was perhaps some loss of employment to those artists already present. One should keep in mind particularly that the motion picture industry was the main source of employment for many among Jewish artists, writers and directors, such as had already been high to start with. This was basically a Jewish industry. That was also true largely true among performing musicians, since a great many of them were Jewish, so that whatever their sentiments may have been about the rivalry for jobs and competition, there didn't seem to be much feeling that this was an anti-Semitic problem. If one of our local Jewish violinists had a problem of displacement by an emigrant Jewish violinist, he might object but he wouldn't object on the ground of Jewishness. So, well, all I can say is that I found very little change, certainly no noticeable increase among my own contacts, the people I was with, toward the influx of this large proportion of European Jews. Again, that does not mean there was no anti-Semitism—of course there was anti-Semitism—but I can't say it was increased by that fact.

Weber: I have found a certain amount of hostility toward Central European composers, or to the schools of such people, as was cited to some extent cited by Virgil Thompson—a kind of Anglo-Saxon suspicion of people coming over, obviously from Germany, Austria, Russia, that whole area.⁷⁴

Strang: Now, you're speaking of Virgil Thompson, who was probably the key at this point. Up to 1930, during the period between the First World War and 1930, American musicians, like American painters, had a tendency to go to Paris. And particularly composers like Thompson, [Roy] Harris, [Aaron] Copland and the rest of them, went to Nadia Boulanger.⁷⁵ They all had a tendency to admire and to some extent emulate the French composers of that period. At that time there had been a reaction

⁷⁴ Virgil Thompson (1896-1989), an American composer and critic, was instrumental in the development of what was sometimes called "American sound" in classical music.

⁷⁵ Roy Harris, the by-name of Leroy Ellsworth Harris (1898—1979), who was a composer and a teacher who came to be regarded as the musical spokesman for American music generally. Aaron Copland (1900-1990) was composer, composition teacher, writer, and later on a conductor of his own and other American music. He was known as the "Dean" of American composers. Juliette Nadia Boulanger (1887-1979) was a French composer, conductor, and teacher who taught many of the leading composers and musicians of the 20th century, and also performed occasionally as a pianist and organist.

against the predominantly Germanic training of their teachers, going back to Horatio Parker and [Edward] McDowell and the rest of them in the pre-war generation.⁷⁶ These people were all German-trained, but then after the First World War the younger people all went to Paris, perhaps reacting against the stuffy academicism of which there was, believe me, plenty.

Weber: why did that feeling arise?

Strang: I don't know; partly I think this was simply the normal reaction of generation to generation against stuffy academicism, of which there was plenty. I don't know. If your father was a Germanic guy, why then you wanted to do something different, you went to Paris, and it certainly is true that the composers especially who were trained in Paris—John Alden Carpenter, and, oh heavens, a whole flock of them.⁷⁷ These people all

⁷⁶ Horatio William Parker (1816-1893), a composer, organist and teacher, was a central figure in musical life cited as the undergraduate teacher of Charles Ives while the composer attended Yale University. Edward Alexander MacDowell (1860-1908) was a prominent pianist and composer best known for his Second Piano Concerto, various piano suites, his popular song "To a Wild Rose".

⁷⁷ John Alden Carpenter (1876-1951) was considered one of the foremost "modern" composers of the 1920's, having composed a ballet score, *Skyscrapers*, for Diaghilev, which was instead first staged at the Metropolitan Opera in New York.

exhibited that feeling long before any immigration took place, showing a general bias against the Central European, particularly the Austro-German.

Now, they tended to be less opposed to, let us say, the Czechs, or to the Bohemian aspect of Central European composition, and they tended to react well to the colorfulness of [Nikolai] Rimsky-Korsakov and [Igor] Stravinsky and so on.⁷⁸ But the general Austrian stream was out of favour certainly during that period prior to 1935. So what sentiments you may have observed probably had a source in this Francophile generation of people who were trained in Europe roughly from, oh, 1915 to 1930. In this period—the period when the impressionist painters became respectable and popular and emulatable—about that same time musicians also began to gravitate to Paris, or a little later. And so I would think this was not an anti-Semitic phenomenon at all.

Weber: was it basically ethnic in nature?

Strang: It was ethnic, no question about that, it was part of this Francophile movement in the arts, found particularly in music and

⁷⁸ Nikolai Rimsky-Korsakov (1844-1908) was mainly known for his symphonic works, especially the popular symphonic suites *Sheherazade* and the *Capriccio Espagnol*. Igor Stravinsky (1882-1971) brought Russian musical traditions into French and American musical life through his epochally popular *Rite of Spring* (1913) and subsequent experiments, even involving 12-tone technique.

painting, that dominated things among the younger composers in the '20s and thereabouts. And the new role came only for a few of us who were really drawn to go to Schoenberg or [Ernst] Toch or the Germanic composers.⁷⁹ The admiration, and the tendency to follow them came about a generation later, especially in music and painting. That arose by the time we came to the post-World War Two period, when everybody was following Schoenberg and [Anton] Webern.⁸⁰ And so the Germanic tendencies tended to be the popular thing—and at that time nobody had much use or for the French tradition. So, this is one of those swings that takes place. Yes, it was ethnic, but I think it was more artistic than ethnic, basically.

Weber: Clearly, a lot was going on in the differences between the two kinds of pedagogical schools, because the French had a more popular-oriented tendency compared with the traditional academic attitude, which though could at the same time be artistically revolutionary. I wonder whether the ethnic factors did come into play on a day-to-day basis, since someone who was Anglo-Saxon—not necessarily Virgil

⁷⁹ Ernst Toch (1887-1964) became well known as a composer in Weimar Germany, went into exile, living variously in Paris, London, New York and Los Angeles, where he composed numerous film scores.

⁸⁰ Anton Friedrich Wilhelm von Webern (1883-1945) was an Austrian composer linked closely with Arnold Schoenberg and Alban Berg; his abstract compositions have been widely recognized among the most significant of that time.

Thompson, more likely his equivalent on the West Coast—could come into contact with increasing numbers of people from the Germanic tradition.

Strang: There was some reaction along these lines. Now, as I think back to the people who were associated with me and with the immigrant group, there were a certain number of people whom you might assign to the Anglo-Saxon tradition for lack of a better term, people who were not exactly Wasps but came from the Protestant tradition, the conservative English-based tradition. There were certainly a lot of people whose general cultural outlook found themselves in this field and fell into the orbit of the immigrant peoples simply because they were without question the dominant people, having great prominence and great ability and great quality. I can remember that it was among some of the younger composers who finally began to show up around Schoenberg and Toch—the two composers I knew best—that he was among the most admired of all teachers, so that they felt they had to take advantage of him while they were here. This did not come from any particular feeling toward the tradition he represented, or the teaching methods he used, but simply because this was a big chance; they felt they had to get what they could from the experience by emulating him. If there was a negative anti-Semitism or negative feeling, there was indeed a certain reserve or a certain degree of negative feeling toward the Central European tradition. “Reluctance” is perhaps the best term to describe what happened among a lot of them.

Now, that didn't prevent them nevertheless from studying and benefiting from the Central European composers. I wouldn't care to mention names, but I can think of a number of people who came to Schoenberg and me in the first four or five years he was here, who were not really drawn to him as a composer, nor to his composing methods. Gradually after a certain amount of exposure they drifted away into the orbits of other people. And some of them eventually achieved considerable prominence but not because of the fact that they were students of Schoenberg or Toch or others of this group. This happened more or less independently, because they didn't stay with them and they achieved their prominence due to other parts of the training rather than their work with these people.

And so, perhaps there was a kind of dormant anti-Semitism which was influencing some of the people. But it wasn't active in the sense of being expressed openly, verbally—it was probably more than anything else a reluctance to feel warm toward them or to cooperate wholeheartedly. Yes, there were some negative elements. But from my own observations I think that, in spite of the fact that this was a largely Jewish influx, and largely Central European influence. I really don't think that there was either cultural or ethnic aggravations due to the fact of their being Central European or Jewish, I didn't see anything overt of this sort for myself.

Weber: Did these people then pretty much keep their own lives going, their old habits?

Strang: Yes, to a considerable extent. It varied of course with individuals, which was bound to be the case. A great many of them never became very fluent in English because there were enough people around who spoke their native languages, so that a great deal of time was spent speaking German or Czech or Italian or whatever happened to be their national origin. Others of them of course, tended to meld into the American cultural and social life to a greater extent. Toch, for example, was never as deeply enmeshed in the Jewish group as some of the others were. He became very fluent in English; he spoke a very elegant type of English; he expressed himself extremely well in English. And he was quite at ease among Americans, and I really think that in his last years in his last he got to consider himself more an American than anything else. Some of the others maintained their cultural and social attitudes and activities and even their language habits substantially intact. A certain number of them, of course, later on, after the war, went back to Europe, although many of them did stay. But the influence on them of being in a foreign country, and the tendency to try to meld into that foreign country, wasn't very evident. They retained their identity culturally and individually to a very high degree, it seemed to me.

Weber: Did they have a hard time in becoming established here?

Strang: Well, I don't know whether I can respond to that in any sort of really meaningful way. As a group, of course, they were themselves a

frustrated group of people because they were after all uprooted from their traditions and from their customary haunts, and they were in many cases hard put to make a living or sustain themselves. And so they were undergoing all sorts of stresses and strains. To my observation I can't say that this seemed by itself to cause any real problems with regard to their fitting into the community.

But certainly, yes, there were lots of stresses to which they were subject. One example of that sort of thing was that most of them were very sensitive to possible slights, to differences of social habits and things of that sort. And when they first came over here they were flabbergasted with the casualness of the Americans, by the failure to shake hands and raise the hat, by the informality with respect to such matters as invitations and so on. This kind of formal and social, what should I say, protocol, was a cause for some wear and tear, some difficulty on their part. And, so to speak, they weren't about to adopt the American attitude, that is they weren't about to talk slang just as the Americans did, and they weren't about to forgo the semi-formality of their own manners. So, in this instance there was misunderstanding. But I don't know whether that really is germane to what you're asking about.

Weber: Did what happened in musical life generally play a part in what happened among composers and all?

Strang: The influence that they may have had that way is awfully difficult to assess. I think their influence on composers and musicians in the long

run subsequently was very great. But it wasn't awfully evident at the time, and they represented some kinds of standards which Americans then tended to emulate. Perhaps among performing musicians this was particularly evident. There were a lot of great performing artists, like [Artur] Schnabel or [Jascha] Heifetz, though he wasn't part of that movement.⁸¹ But conductors like Klemperer, Schnabel, and some of the German directors, people of this kind, who represented very high standards which Americans could emulate and did emulate, perhaps without realizing that this had an influence. And the musicians, particularly those who were active in teaching, had an indirect influence on young Americans and on American composers. For us Americans, it was an extraordinary experience to be among a group of European musicians and hear them talking about music and musical literature. To sit with a group like Schoenberg and Klemperer and [Eduard] Steuermann, and the Pro Arte Quartet or the Kolisch Quartet, groups of musicians like that.⁸² The same went for somebody to bring up some

⁸¹ Artur Schnabel (1882-1951) was an Austrian pianist, composer, and pedagogue of considerable note, best known for his dynamic interpretations and editions of Beethoven's piano works. Jascha Heifetz (1901 -1987) was a violinist born in Russia who moved as a teenager to the United States, where his playing was thought to set the standard in the field generally.

⁸² Eduard Steuermann (1892-1962) was a well-known pianist and composer who studied with Ferruccio Busoni, Engelbert Humperdinck, and Arnold Schoenberg. The Pro Arte Quartet was founded in Brussels in

point about an obscure sextet of Brahms or one of the less-played Mozart quintets, something like that, a piece of literature which we might know existed but which we never had a chance to hear, and most likely have never seen the score of. And to have them argue about the notation of a particular passage, or the particular form of a theme at one point in the development. It was amazing to experience the incredible acquaintance with intimate knowledge of music which these people demonstrated as a matter of course, the kind of expectations which a man like Schoenberg or Toch would have with his students with the way of knowing what went on in traditional music. The fact that they had heard hundreds and hundreds of pieces of musical literature which we knew only by name.

Now, the mere existence of people with this kind of erudition and familiarity with the literature was the thing that certainly influenced all of us enormously. It led us to go study scores and to get ahold of records and to seek out and hear things which we might never have been led to do otherwise. Now, this indirect stimulation, created by the richness and the depth of the musical tradition of which these people were a part, certainly had a tremendous influence probably on every student who came in contact with them, and probably a lot of people who weren't their students but who simply were present at discussions or lectures or whatever have you. Here's one respect which I think they had a

1912 and became one of the most celebrated ensembles in Europe in the first half of the twentieth century. The Kolisch Quartet (see above) was founded in Vienna in the early 1920s as the New Vienna String Quartet, dedicated to the performance of Schoenberg's works.

tremendous influence. And yet you probably couldn't pin it down to anything very specific.

Weber: Did you also rethink the whole conception of education in the process?

Strang: The question of influence on education is a very peculiar one. For these people, I think that was a two-way process in many respects. The ones who actually got into teaching were at first very dislocated, very disturbed, very troubled by the whole situation because for them education was not something you looked at as a separate element, as something to be examined, or something to be changed. Education for them was the Germanic tradition really. They'd all been brought up more or less in the apprenticeship school. They had been brought up in traditional methods; they had all learned the Fux counterpoint and the traditional German thorough-base type of harmony.⁸³ They had all gone through this kind of rigorous but routinized training, just as musicians had gone through innumerable sets of exercises and through a tremendously thorough but often not terribly effective kind of routinized traditional education.

⁸³ Johann Joseph Fux (c. 1660 –1741) was an Austrian composer, music theorist and pedagogue whose treatise on counterpoint, *Gradus ad Parnassum* became the single most influential book on the Palestrinian style of Renaissance polyphony.

Now, when they came over here, that's all we knew, and when they were exposed to American students, and to the framework, the institutionalized elements of American education, they tended to be frustrated and lost, and to have no idea what to do. And the primary evidence of that was their reaction to the American students, who for them seemed to be frittering their time away on social activities and other people's courses, for which the need was not evident. Schoenberg, for example, coming directly from the Berlin Hochschule [der Musik], expected musicians and composers to come and spend every working hour doing whatever they could for him, indeed, to produce an enormous amount of manuscript, and to know a great deal. They were asked to teach in American universities where, in the first place, the people who went to them had no such thorough background training or knowledge of the literature. And, in the second place, their activities in the framework of the American university, or even the American conservatory, were divided among other musical activities and non-musical activities. It was very difficult for them to conceive of any reason why any student coming to them they should be wasting this time on courses in political science and history and things of that sort.

Weber: Did that involve specialization much more than a liberal arts education?

Strang: Oh, absolutely, this is something that they had very great difficulty understanding, and the more sensitive of them took this as

grounds for some thinking and some self-criticism on their own part, and some adjustment as well. That was certainly true of Schoenberg, who made a heroic effort to adapt himself to the situation. But they were all disturbed by it. And it's a question whether they had much influence on the educational side of things, indeed certainly very little in terms of the organizational and educational methods they had very little. The American educational community felt that its methods of approach were so much more advanced, and much more justified by experimentation and study, feeling that they were doing a better job and a faster job of educating more people. They were not about to go back to the one to one-to-one traditional exercise-oriented type of education that the Europeans represented.

Now, on an individual basis, there were many times when they had no choice. But for instance, among the many Americans who studied privately with the Europeans, they simply took the traditional training whether they liked it or not and went through it—and in many cases it did them some good. But there was always friction and a certain amount of resentment, and a certain amount of puzzlement that they're being asked to do this. So, there were a lot of them who didn't change their methods of teaching at all. They felt they had the real scoop, they had the ideal method, they knew exactly how everything should be done. It's like the instrumental teacher who still today thinks he knows exactly how you should hold a bow, and exactly how your violin should sit under your chin and, by golly, if somebody comes from another teacher, the first thing he does is to go back and tell you how hold the bow and hold the violin, and

so on, in the only true way, which is the way he was taught by his own teacher—there was still a good deal of that.

But the same tendency was present even among the teachers of composition. I'll give you an example. When I came to Schoenberg, I had already had pretty rigorous counterpoint training under Glen Hayden, who was the translator of [Knud] Jeppesen's *Palestrina* book, and was highly recognized, highly regarded, by Charles Koechlin in the Paris Conservatory.⁸⁴ Well, I studied with Hayden both beginning and advanced counterpoint, and so on, and I went to the Koechlin method and started the old first species counterpoint in the [Johann Joseph] Fux manner. And four years later, I went to Schoenberg and he started me all over with the species counterpoint in the Fux manner, and this was the attitude which they brought with them, that if you hadn't been through the same type of traditional rigorous training that they had been through, then no matter how much you knew, how advanced you were, you should go back and start over and go through the mill. Now, that situation just didn't fit well into American education at all, and so created stresses and strains. It influenced the younger Americans who were under their tutelage, though not for the most part by way of having younger Americans adopt the authoritarian approach, or at least not certainly to the same extent that these Europeans brought with them. A lot of us who

⁸⁴ Knud Jeppesen, *The Style of Palestrina and the Dissonance* (London: Oxford University Press, 1927). Charles Koechlin (1867-1950) was a teacher and composer who had a strong impact on the younger generations of French composers, including the group called Les Six.

went on and taught for many years afterwards adapted from the European teaching but none of us ever fully followed the individualistic routine of the traditional German type of training.

Weber: Do you think that the tradition that they brought here influenced the orientation toward composition of Americans in the universities by the 1950s?

Strang: I think that may conceivably be the case. This was the nearest thing we had to a scheme by which people could acquire a high-level background, a thorough and extensive knowledge of literature, and so on. In our schools, our educational system, it certainly couldn't be done by taking individual lessons and so on, and certainly couldn't be picked up by the individual himself. We didn't have a situation such as existed in Vienna prior to the mid-'30s and for which you could go to the Vienna Philharmonic for [what amounted to] 30 cents, and the young students of that time would every night of the week get on the streetcar and go down to wherever particular concert was being given. And, of course, in that period the young musicians in Europe— including the Americans who went to study there—were likely to be absorbing music at a faster rate than later Americans were going to movies, or a current generation would be listening to television. So, at that time a lot of it was absorbed by osmosis. This was impossible in the American set-up, you just couldn't do it. The nearest thing to it was a gradual increase in the availability of records. And if American students acquire any real familiarity with

literature nowadays, it is more likely to be from records and from any other source. Well, we had a hiatus, you see, we couldn't do it in the way they did it, and the universal ready availability of records hadn't really developed at that time.

So I think it's probably true that Americans began to demand a more thorough and more complete background, and that the teachers began to find that necessary. Indeed, about the only avenue where this was possible was in the colleges or universities. Another feature which may have had some influence on this was the admiration we acquired for the deep and broad acquaintance with music may have led to a shift of composers from the more or less intuitive approach to composition, which to a degree was encouraged in the French school, over to one which could be rationalized and systematized to a higher degree. And of course, if you're looking for something to be rationalized, systematized, and taught in a "scientific" manner, the 12-tone or the serial approach as it developed after the war was just the thing. And of course, it spread like wildfire through the colleges and universities until it became the new classicism.

Weber: But didn't the French school, especially with Nadia Boulanger, have a certain amount of very intense focus on a pedagogical system just like the Germans?

Strang: Oh yes, I didn't mean to imply that this did not exist in the French schools. And of course, they also had the authoritarian side of things. The type of musical training in the French conservatory, with

several years of *sofège* was just as authoritarian, and just as uncritical, involving eight years of *sofège*, and just as authoritarian as the German school. And certainly Nadia Boulanger was one of the more remarkable and, I'd almost say, unique figures in that period, she put tremendous emphasis on intensive study of existing musical literature. So, all this certainly existed there.

No, I wasn't thinking of that when I mentioned the intuitive side of things. But the French school of composing, as distinguished from the kind she put on, was not so much concerned with being able to prove the derivation of a theme or the evolution of a motive. The outflowing of a piece by [Maurice] Ravel or by [Claude] Debussy, though extremely well made, was to a very large extent dependent on a certain feeling for how the thing went, a spinning out of things according to one's feeling. Which is of course, almost the antithesis to the true serial approach, since a thorough-going serial approach is one in which you don't do anything because it feels right or because you like it, indeed just because the system produces it. You see in extreme examples, in [Ernst] Krenek's pieces, for instance, where every item or every event is predetermined by the elaboration of the various serial systems. That's the sort of thing which, as I was suggesting, systematizes, finding an excuse for judging merit on a basis which has nothing to do with sensibility, or sensitivity, or the feeling that one gets about things. We've gone through a period in which the old-fashioned dichotomy between the classical, formal aspects of things and the feeling content has sort of lost its meaning. There used to be a kind of a clear distinction made between form or structure and

the emotional or feeling content. And this became much too simplistic in our time.

Weber: What kind of dialogue arose about approaches and composition at the time?

Strang: Yes, there was a considerable dialogue. It even showed up in some of the little composer's magazines, one of the few sources that were available to modern composers for expressing their ideas in those days—indeed, it included the form versus content formulation such as was pretty active then. And there were a lot of people who maintained that the only way to judge a piece of music was visceral—"how hard did it hit you," you know—even though there were other people who were much more concerned with the elegance of design and the orderly presentation of ideas and the balance of parts, and so on. And of course, those of us who are inclined toward considering the formal organizational aspects found ourselves tending over toward the Germanic because of its emphasis as to such matters as form. I wonder what's happened to that overly simplified aesthetic controversy, you don't hear much about it anymore.

Weber: What about the conservatories, locally, in this regard? Did any of the émigrés work at the conservatories?

Strang: Well, in the first place, of course, there wasn't much of that kind of conservatory education around here, since the conservatories were virtually all on the East Coast. There were a few struggling little conservatories which usually represented informal groups of teachers getting together. But none of them had much in the way of reputation; they didn't have very high-quality staff. There was some effort to do this. I remember one effort to do it revolved around the Compinskys.⁸⁵ Captain Hancock had a mansion down on the corner of Vermont and Wilshire [streets], which nobody would want to occupy, but he turned it over to the Compinsky trio to start a conservatory. And for several years they operated there and, because the Compinskys themselves were a rather freewheeling bunch, some free-wheeling things went on. Some experiments were tried. I taught a course in musicology there at a time when nobody in Los Angeles had ever heard the term. Things like this went on a small scale but they never were successful, you see, and there was never any backing for them. Some of these people did get involved to some degree, and the San Francisco Conservatory drew a few of them. But it never really amounted to much as far as I can remember. There really wasn't a conservatory framework available for them to fit into. Perhaps the nearest thing was what one might call the "antecedent" school of music at USC. But in the '30s this was not as it is today, a rather highly developed training school for performers. It was a teacher

⁸⁵ Dorothy Compinsky (1923 -2018), was a prominent violinist in Los Angeles married to Manuel Compinsky who developed an active set of courses in their home in Burbank.

preparation school like practically every other music department. This was certainly true at UCLA. When Schoenberg went to UCLA, he had no comprehension at all of that kind of a music school. He was very negatively impressed by it because it didn't have anything of the kinds of training or courses which you associate with music schools in Europe.

Weber: So, in the Los Angeles area everything approaching a conservatory was private?

Strang: It was private, such as it was, and the quality of it was at that time probably on the average not very high. Now there were a certain number of outstanding teachers—Richard Buhlig was here. And Buhlig was certainly a very fine teacher, I don't think there's any doubt about that.⁸⁶

Weber: Of course, a lot of other local students were there. A lot of music education was going on.

Strang: A lot of musical education was going on, but it was somewhat unorganized. And a good deal of it was simply carrying on the authoritarian methods which these people themselves had learned mostly

⁸⁶ Richard Buhlig (1880-1952), a pianist in Los Angeles, was highly regarded for his performances of Bach, developing a two-piano transcription of *The Art of Fugue*. He made widely regarded performances of late Beethoven and Brahms

in Europe. You know, they were the slaves of their masters, and they expected the peoples to be their slaves and to carry on the tradition with a lot of talk about the Chopin tradition or the Liszt tradition. This was true particularly among the violinists, you know, about [Eugène] Ysaÿe and all the rest of them.⁸⁷ And so a good deal of what one thought was literally the passing on of a tradition from master to the pupil. Today, you know, we don't find this a very rewarding point of view on education.

Weber: When did it stop?

Strang: Well, of course, it didn't stop immediately, and perhaps it hadn't stopped back then. I know there are still a number of private teachers who to a degree still teach that way, but curiously enough, I think it began to wind down after the war. It's critical to pin this down. Now, there's one thing which may have had some influence on this. It's again one of these odd little apparently unimportant things which started off not seeming to be important. The Music Teachers Association of California got started growing again, trying to upgrade private teachers. And during the late '40s and early '50s, Paul Pisk, who at that time was at the University of Redlands, agreed to formulate some examinations among private teachers, many of whom had very little formal education.⁸⁸ And they started issuing certificates of merit for students and certificates

⁸⁷ Eugène-Auguste Ysaÿe (1858-1931) was among the leading virtuosos of his day; Cèsar Franck's *Violin Sonata* was dedicated to him as a wedding present.

of training for teachers who were able to pass this examination. This led to a rather considerable number of otherwise insignificant music teachers to think about what they were doing, leading them to get together and hear one another's pupils, and to compare the results, and so on. And well, let's see, for about eight years, from about '52 to '60, I took over the examining duties, and I traveled each year all over California doing the examinations, listening to students, and giving advice.

But other things were happening; for instance, [Régine] Poldovsky gave master classes and training classes for piano teaching and its literature.⁸⁹ So, this rather innocuous group, the Music Teachers Association of California, may have had much more influence than we realize, gradually breaking down the dependence on what we see as the authoritarian tradition in music. Teachers at last began to get together. They began to hear one another's works, they began to compare their students with other students. They began to ask questions, and they began to improve their own in-service training. I don't know how much

⁸⁸ Paul Pisk (1893-1990) earned his doctorate in musicology at the university of Vienna in 1916, studying under Guido Adler. Interviews with him during the 1970s can be found in Special Collections of the library at California State University, Long Beach.

⁸⁹ Régine Poldowski was the professional pseudonym of a Belgian-born British composer and pianist born Régine Wieniawski, daughter of the Polish violinist and composer Henryk Wieniawski. Some of her early works were published under the name Irène Wieniawska.

influence this had in breaking down the authoritarian habits. But as I look back on it now, twenty-five years later, it could just conceivably have been rather influential because it was during this period that this kind of universal authoritarianism began to sort of liquidate itself.

Weber: So you think it came from a strong infusion of activity among key people immediately before things began to change significantly?

Strang: But, of course, influences can come as much by reaction as by imitation.

Weber: I myself don't see a reaction against the authoritarian tradition in what you're talking about.

Strang: No, I don't think there was a reaction against the authoritarian tradition, there was simply a certain discontent, a discomfort that was created, after which people began to itch and began to squirm, beginning to find themselves working their way out of discomfort with this sort of thing.

Weber: Do you think the people who brought it over here ended up abandoning it because it was not required of their students.?

Strang: Well, to a degree, that's certainly true. Now, I saw this happen with a considerable number of Europeans who got into education,

Europeans of many different types. People like [Erich] Zeisel, or, who was it, a person who was for a long time the opera teacher at LA City College.⁹⁰ There were a lot of these people who, after working for many years with American students, gradually acquired a different connection with American educational institutions. They certainly changed their methods and broke away, perhaps without realizing it, from the authoritarianism with which they were brought up—they departed from it to a very large extent. Now, I suspect part of what caused it, however, was the influence of the tremendous knowledge of literature on their part, bringing an attempt to emulate it. We wanted to know more, and we began to examine music itself, and we begin to examine what and how we were taught, and we began speaking more meaningful things...

Weber: ...and going in a totally different direction.

Strang: ...and going in a quite different direction. Of course, that's not at all unusual for a trend to create its opposite. There is a certain usefulness, seen as a Hegelian idea of thesis and antithesis, by which it sometimes becomes difficult to determine to what extent the reaction changed from the tendency itself.

Weber: I think that something that could have been involved, was a tendency growing out of relations within the family life, at least among

⁹⁰ Erich Zeisl, often spelled as Eric (1905-1959), was an Austrian-born musician but spent most of his career in the U.S.

the more educated, more culturally sophisticated Southern Californians, apart from the professionals, though with them also to some extent. After all, musical study became almost a puberty rite in Europe of the nineteenth century. For that matter, this trend arose among exceptional professionals, people who thought that most traditions were losing their value for musical study. All of which related closely with what happened with music among families, both in the past and what was still happening.

Strang: Oh, yes, well, this involves the whole nature of the changing musical scene, and a lot of other things that contributed to it. Something which we should talk a little about sometime, is the whole interrelationship between technology and music. Now, the influences of technology were very far-reaching in respects that are usually overlooked. And one of them was the fact that prior to the First World War, if you were going to have music in the home, you made it yourself. And so when I was a boy, by golly, my mother played the piano and I was taught to play the violin, and my brother handled the drums, my father the clarinet, and we tried to have our little chamber music ensemble within the family. You sang hymns, you made music. Now, of course, by the '30s the business of making music in the home was essentially dead. So this was one influence which was evident. Plus the fact that the cultural necessities, the fact that you weren't considered to be educated right unless you took music lessons; you were supposed to be able to do something of that sort, and your mother wasn't happy unless you got

some training. This sort of pressure began to lessen with the loosening of the authoritarian relationships within the family, part of a much broader change in the areas where we've been discussing.

Now, as I say, the influence of technology had a great deal to do with that and many of these other trends—the availability of records and of radio; the ability to hear operas every Saturday morning from New York over the radio; the presence of records in the home; and the ability gradually to buy your own records or to go to a library and borrow them. Thus expanded the accessibility of music on other bases, which we had been confined to earlier. Before the First World War you either made your own music or you heard in direct personal contact some concerts by artists who came around on tours. Still, you didn't hear very many concert artists, and the music you made in your home was invariably lousy. And so the standards that you held up were few and far between, and mostly pretty low-grade. But by the time radio performance and recorded performance became a general fact of life, one of the things that happened was that levels of musical performance with which any person anywhere could be acquainted were very, very much raised. The choice of music which you could hear was very much broadened. And the demand for such high standards was broadening and also increasing, partly from the influence of the influx of European people with wide knowledge and high standards. And by the time we come to the postwar period, it's now possible for anyone anywhere to hear performances of any music, or at least a very wide selection of music, performed to the very highest of standards. Admittedly, the fidelity wasn't all that high, but

the performance standards and the quality of the music to which you had access could be high. When you add all that together, the tyranny of a tradition no longer becomes necessary in order to determine the true style, and you no longer have to get it from the third-generation musical descendant of Liszt or somebody else.

Weber: Did the musical émigrés affect this?

Strang: Yes, of course, I think so.

Weber: How did you relate to all this?

Strang: Well, in the '30s there were still a lot of them who, for example, were not really very sympathetic to the broadcasting and the recording of music. Now, there were good reasons for that, because the quality of the sound and the quality of reproducing equipment was such that it really wasn't very high quality. For a person who'd been brought up on live music all their lives was a somewhat painful proposition to listen to a 78 [rpm] record, and even from the early '30s a phonograph of that period had very poor reproduction values.

Schoenberg, and well most of the composers, were gradually becoming favourable to the recording of their music because this was one means of dissemination, one means of getting it heard, with the hope that people would be able to hear it themselves. But, curiously enough, they were often rather negative in their reactions to hearing recorded

music of traditional composers. They felt well, it didn't really sound right, one needed to hear it in a concert. So they were feeling the influence and the pressures of this sort of thing, and their feelings or attitudes were certainly ambivalent. Certainly, during that whole period, and well into the '50s, there was a recurrent sentiment that somehow reproduced music was inferior, that the only true way to hear music was in the same room with the performance. While this was partly a matter of a loyalty to live performance, it was also partly a feeling that quality of reproduction wasn't good enough, and that to hear the real thing you had to hear it in an acoustic environment.

Weber: They weren't about to fight it.

Strang: They weren't about to fight it. But they were trying to come to terms with it, and as so often is the case, they did so first on the ground that it was useful, indeed profitable to them. And of course, there was this tremendous struggle that took place between performing musicians and the recording industry, where again there were many sides to it. The musicians who worked in the recording industry, or in the radio industry, and made a living from it, were all for it, and the musicians who felt that recordings and broadcasts took away jobs which they could otherwise be filling, were against it. And so you had this pulling and hauling of sentiment among musicians about mechanical reproduction, very largely turning out without their realizing it, that it would hurt their own personal interests in it. To save a job you had to take a job away from

somebody else, who was against it. It's like the things which took place in the '50s and '60s, when I used to give lectures about budding electronic music and later budding computer music. Musicians would usually come up to me after a talk on that score and ask what is really going to be accepted, or is electronic music going to displace my job, my instrument, my field?

So people got terribly upset about this in the '50s and '60s. This was something that we don't realize today, when everybody takes this in stride. There was a time when people felt very much threatened, first by recording and by sound movies, by radio and by television, then by electronic instruments, and finally even by computers. And the people who saw some threat to their livelihood or to the thing to which they devoted their lives, sometimes reacted very strongly about it all. It's particularly bad with string people today. When I talk to violinists about how a scale which doesn't divide the octave equally, or into the 12-string sequence, that makes string people particularly threatened because they've spent their whole lives in a vain attempt to try to produce an accurate 12-tone subdivision of the octave. And if they come close to it they felt that the tradition's only going to remain by the grace of God an extraordinary ear, mainly for those with an extraordinary ear. And yet if you propose any other kinds of subdivisions, people feel terribly threatened, since after all their whole careers have been devoted to the attempt to do this.

Weber: Was this country much further along when they came over, or did they come over threatened already?

Strang: They seemed threatened already, and there was that much difference, the development of this kind of technology was pretty evenly divided. Some aspects of it were on higher levels in Europe. But, on the other hand, there was more commercial development of this sort of thing in the United States, and there was a great deal of invention and experimentation going on in the United States. And so this was an international threat that existed in Europe, it existed here, it was something they saw coming. And so I don't think that made very much difference.

Weber: Did you get any feeling that they came over to escape certain things, thinking this country was a kind of Promised Land, and that it was further along in rethinking these matters?

Strang: Well, I never really felt that. Those that I knew were very strongly controlled or influenced by nostalgia for what they were used to in the musical world, and they missed the constant concert, the "opera in every village" type of situation. They felt that the United States it was pretty barbaric on a number of grounds. One was the low level of its musical culture, and another was of the absence of governmental subsidization such as was taken for granted in Europe. And another was

the obvious bias of the American audience toward developing mechanical reproduction and these other technological things.

I don't know that I could identify anyone among them who seemed to be escaping from an intolerable or even an unacceptable environment to a better situation. This sentiment was best expressed by one of the things Mrs. Schoenberg liked to point out, that when came to the United States and were first in Boston and New York, their acquaintances in Europe were commiserating with them, but this didn't seem to be too bad.⁹¹ But when she wrote that they were going to move to the West Coast, that they were coming to California, then she got letters urging her to be very careful, to take water with them and make sure that they weren't attacked by Indians. And the feeling that the Far West was as barbaric as a Western movie pictured it. Now, there really was, you see, this feeling that the Far West was the New Frontier, and in this respect the new frontier was no place that drew highly trained musicians or artists. If they were drawn to the new frontier, it was for reasons other than artistic reasons.

So, the feeling of escaping from something in Europe to better opportunities over here was not a sentiment that I remember running into among them, really not among any of them. All of them would have gone back at a moment's notice, say in the '30s or early '40s, had conditions returned to those which they had left. And those who didn't go

⁹¹ Regarding Gertrud Kolisch Schoenberg, the composer's second wife, see Kenneth H. Marcus, *Schoenberg and Hollywood Modernism* (Cambridge: Cambridge University Press, 2016).

back stayed here not so much because they found this environment more grateful or found that they were accomplishing more here. For most of them it was simply that it wasn't the way it used to be; indeed, the new Europe didn't attract them any more, or perhaps attracted them less than the new America attracted them. But if it had been a question of going back to Europe in the '30s, barring inflation and some economic and political conditions, they would have gone back like a shot. Going back to a Europe without anti-Semitism or without autocracy or without militarism would have drawn them back there without any questions.

Weber: Did it turn out that once they got here, some quickly found it different, more attractive, and moved quickly in new directions?

Strang: Oh yes, one of the things that I never cease to be amazed by, is, in the first place, the resilience and, in the second place, the adaptability, the tendency to adapt, regardless, of young people. The families of these people did so in spite of the fact that in the earlier part of it they were also part of the "enclave", the communities which retained what they could have of their European character. The young people like the Schoenberg children, like Franzi Toch [daughter of Ernst], these kids as soon as they started to go to school began to Americanize very, very rapidly. And by the time they became teenagers, they were all pretty well alienated from their parents. As far as any tendency to follow the European tradition as far as habits were concerned, by the time they became teenagers were almost indistinguishable from any other

teenagers—in just the same way as the third generation Japanese, who, however, were set apart by different skin color and different facial characteristics. So, you could always recognize their oriental derivation, but you have to remember that these Europeans were not people who could be recognized physically as of foreign derivation. And so they fit right in, they seemed to me to be completely swallowed up, lost in the American melting pot to the extent that they became indistinguishable from any other American youngsters of similar ethnic backgrounds.

Weber: But did they keep much ethnic identity that differentiated them from Americans?

Strang: Well, in one way or another, of course, some of them reacted against all this and tried to be as invisible as possible, as chameleon-like as possible, and to absorb all the characteristics of people around them. Some of them retained a certain pride in their background. And this, I suppose, was partly a matter of planning, partly a matter of family atmosphere, partly a matter of degree of parental domination.

Weber: Was there ever a conflict between parents and children during the process of Americanization?

Strang: Oh, yes. But mostly the same kind of conflicts which often occur between parents and children. I don't really think it is that different.

When I talk to youngsters today, I see a good many of them because my

wife has been still teaching the kids at a junior high school or at a high school level. And of course, I've taught college students all my life. And I talked to their parents, and there are kinds of conflicts and the kinds of reactions against their parents, all and of these sorts of things really haven't changed that much, you know. They haven't changed so much from generation to generation. And I really don't seem to remember that there was that much difference between the reactions of the children of the immigrants and their parents. Now, it was true that some kinds of potential conflicts between generations were exacerbated by the tendency of the children to assume the manners—or the lack of manners—of the American youngsters they were associated with. This was probably more of a shock because of the formalistic manners and social habits which their parents brought from Europe. So, probably the degree of change may have been enhanced in some of these things. But it did not seem to me that the differences were of kind, they were more perhaps of degree in special respects.

There was one change, one adaptation on the part of their parents which may be important. Whereas in Europe, with the authoritarian tradition to back them up, any deviation on the part of the children was slapped down hard by the domination of the father, bringing the subjugation of the children and the obedience syndrome, a sort of thing that were heavily reinforced in Europe. Yet there certainly was no reinforcement of that sort of thing in the American society, where the children were growing up in school with their own social activities, and all that sort of thing. None of this had existed before. So the fathers and

mothers who might have been inclined to control their children with an iron hand, lacking that reinforcement, were probably much less rigorous.

Weber: What else were they going to do?

Strang: Sure, and so in a sense, this represents, I suspect, the change on the part of the older generation.

Weber: The important tendency that I found was that... [indistinct]

Strang: Oh, yes, I don't think there's any question. When I was emphasizing the degree to which the European families' problems were similar to those of American families, I didn't mean to imply that the children were breaking away to any greater degree than our children were. Now, the other side of that is that many of these people were clearly superiors in their fields, that is, that they were highly talented or very brilliant or very intelligent, something of that sort. And their children recognized this, and after the usual teenage rebellion phase a great many of them then began to realize that the family from which they came—and the background from which they came—represented something important and something valuable. And of course, a good many of them followed to some degree the cultural tendencies which their parents represented. So, you certainly find a lot of young musicians who talk American but who play with much of the skill and much of the background and much of the tradition which their parents brought here.

Weber: What about Russian expatriates? What about their kind of rubato?

Strang: Of course, particularly the Russian violin style, which was certainly very much emphasized. We got a lot of people who came from the Russian violin school here and offered an awful lot of Russian-type violin playing or string playing around this community. So there's a lot of tradition which was carried on, and which certainly enriches musical life of the present.

Weber: That reinforces what I found in differences between specific nationalities. So what would you have to say about the differences between the Russians versus the Viennese?

Strang: Well, there were certainly differences which were, shall we say, "associated" with nationality, although I don't think they were "produced" by nationality. There was a different method of violin playing in Russia before the First World War than there was in Belgium. The Ysaÿe tradition, on the one side, and the [Leopold] Auer tradition on the other.⁹² And of course, the authoritarian passing on of styles from

⁹² Eugène-Auguste Ysaÿe (1858-1931) was a Belgian virtuoso violinist, composer and conductor, regarded as "The King of the Violin", or, as Nathan Milstein put it, the "tsar". Leopold Auer (1845-1930), was a Hungarian-American violinist born near Dresden whose pupils included

generation to generation of styles is still effective to some degree even though it's broken down a good deal. So, there are things like this which are certainly recognizable. Nobody, for instance, who really fought out the '70s could fail to even recognize the [Gregor] Piatigorsky influence, which is a very different influence than that of the students of [Emanuel] Feuermann, for example.⁹³ There are things like this, we still see signs of them, though watered down and modified, for sure. And certainly there must have been a lot of musical talent which we wouldn't have otherwise had. Now, I say that with some hesitation because the question of heritability of artistic abilities is one of those things that we really don't know much about—whether these young people inherit through their genes some talent, or whether they inherit a cultural tendency through a cultural tradition. It's something you can argue about.

But I think certainly that the intensely well-educated musical youngsters of today who are produced right in the United States, or right in Southern California, are totally of another order than those who were being produced 25 or 30 or 40 years ago. The difference involves their acquaintance with the literature, their artistic freedom, and their vitality. There are innumerable ways in which the younger musical generation today is at a very much higher level than the musical younger generation,

Mischa Elman, Jascha Heifetz, Efrem Zimbalist, and Nathan Milstein.

⁹³ Gregor Piatigorsky (Grigoriy Pavlovich Pyatigorskiy, 1903-1976) was a cellist born in Russia who spent most of his career in the US.

Emanuel Feuermann (1902-1942) was an internationally celebrated cellist.

I'd say, of the 1930s. There are hundreds of youngsters today who can play or produce music, and I suspect compose, at a level where only one or two would be able to do it in the '30s. This is the result of many things, perhaps partly the influx of people, or perhaps the greater acquaintance with music through mechanical and electronic means. But perhaps more than anything else, it's a product of the much higher standards to which these young people set themselves. Nowadays, their example is not how their teacher played a piece, but rather their example is how it's played on the best record they can get ahold of. They take all this for granted that that's the level which they should approach, and so these youngsters are trained technically and artistically....

Weber: This was not imposed on them, correct?

Strang: It was not imposed at all. There is no question in my mind that the level of quality in the music of young people, both what is performed and what is written, stands now at a level which is very, very much higher than they were thirty, forty years ago—there just simply is no comparison. I have my own personal examples of some little percussion pieces which I wrote in 1935, which were very challenging at that time, and I got a letter during the war from some percussionist at the New England Conservatory [of Music] requesting permission to play the pieces. But I had specified three percussionists, and I wondered if I would mind if they divided the parts among five, because it was just too complicated for three to play. Right now, however, youngsters in any

high school or college can play these pieces with no trouble at all. And, of course, this is true at all levels, because the quality of production of these young people is very much higher now. How much the immigrant community had to do that I don't know. But I suspect, as I indicated, that all the way through, in positive, negative, and tangential ways, that perhaps they were much more instrumental, that their influence became much more fruitful than we realized.

Interview 5 with Gerald Strang: Led by William Weber

Strang: One of the few things I knew I did not want to do when I went to college was to teach. That was one of the things I was certain about. And of course, then I quite by accident acquired chances to teach and became a devoted and convinced teacher. But this was entirely in spite of, and beyond my knowledge, when I was in college. And then, of course, came the war time when they threw me into Douglas [Aircraft Company], and Douglas stuck me into engineering training, and then after that they stuck me into design work in the engineering department. From all of that has come my whole second career in acoustics, because I got the

training in engineering on the job. I did a lot of this as an engineer in training for Douglas, which affected how I see things of this kind. And then, of course, who would have anticipated that the last fifteen or so years of my career as a musician and teacher of music would involve the use of synthesizers and other electronic gear along with computers. These things didn't exist at all when I was getting my teacher training or my musical training. I have little reason to favour the vocational type of college education; I think that its primary weakness is that it's just not utilitarian.

Weber: You were disappointed?

Strang: Yes, I went through vocational education, which is not utilitarian because by the time you get to used to it probably what you're going to need is something entirely different.

Weber: In this session I thought we'd jump right into Schoenberg.

Strang: Right.

Weber: Perhaps first you could just outline the years when you were involved with him. It seems like vocational education was an admirable thing for you to get into.

Strang: Schoenberg of course was recognized as a very fruitful and very germinative force back into the '20s, but I didn't really become aware of him until about 1930. At that time I had a piece performed in Havana

that was reviewed by a critic who said that my music had obviously been very much influenced by Schoenberg. At that time I had never heard anything by Schoenberg, and I had never seen a sheet of his music. So of course I went out and attempted to get acquainted with the work of this man by whom I'd been so heavily influenced. I even went to Europe in 1929 with the intent of studying with Schoenberg in Berlin, but because of family problems, and that sort of thing, I wasn't able stay there, and I had to return to United States.

Weber: Did you have any contact at all with him over there?

Strang: I had no contact with him at all. I simply went over to Berlin cold turkey. I was going to go meet him at the [Berlin] Hochschule [für Musik] and attempt to do some work with him. And that was completely aborted when the depression hit. And, of course, Schoenberg's fortunes changed with the rise of Hitler to power in Germany. He wound up in the United States in 1934, on the East Coast, and in the spring of 1935 he came to Southern California. At that time, I was living in the Bay Area and was doing a good deal of work for the New Music Society of California. This was while Henry Cowell was still running it, and so then Henry arranged that Schoenberg come to San Francisco to conduct a concert of some of his works, including *Pierrot Lunaire* [opus 21, 1912] and the Chamber Symphony [opus 9, 1906]. I met him in one of these rehearsals and immediately began to inquire about what he was going to be teaching and what chance there was to work with him. He told me that the

University of Southern California was going to put him on for a summer session in '35 and that there were some scholarships available. I applied, and I got one of them.⁹⁴

And so, in the summer of 1935, I arrived in Southern California as a scholarship student for his summer work at USC. From that time until his death in 1951 I was almost continuously in very close contact with him, starting out as kind of a voluntary assistant. He was completely at a loss in the type of educational institution in the United States, particularly the summer session. The students were mostly public school teachers, middle aged or older, who were there to get a few units to improve their salary schedules. Leonard Stein and I both happened to be in this class; I think there were only three of us who were in any sense composers or professional musicians in the class.⁹⁵ And so we did what we could to help him express himself and to help him to cope with the situation which was completely baffled him.

Weber: So this was a voluntary, spontaneous thing of yours?

Strang: Yes, it all just sort of grew up because he didn't even know how to ask for a projector or some kind of assistance from the university, and

⁹⁴ See Pauline Alderman, *We Build a School of Music* (Los Angeles: University of Southern California, 1989), 125-37, 155, 290f.

⁹⁵ Leonard David Stein (1916-2004) served as musicologist, pianist, conductor, and university teacher, in the process significantly promoting contemporary music on the West Coast.

he had no idea what grades meant or what kind of expectations he could ask of his students. He needed somebody to play musical illustrations and examples. Leonard Stein fell naturally into that role, and after the first couple of weeks I simply sat at the desk beside him and supplied about every third or fourth word because he was attempting to teach a class of twenty or thirty people on the basis of his high school English—which he had learned twenty, or maybe thirty years before. And this was a pretty heavy situation for the old man; it bothered him a great deal because he felt so unable to cope with it. And because I was able to help him with his communication and some of the other things, it was quite natural for me to fall into that role. And he then got me another scholarship from Sam Golden.⁹⁶ And I continued working with him, which was the end of my formal education from Schoenberg, since from there on I was his assistant. And I then went over to UCLA with him when he was hired over there in '36, serving as his teaching assistant. I attend every one of his classes, sitting alongside of him to supply him with vocabulary. I corrected his papers, helped him to resolve his personal problems, advised him on the purchase of real estate, and drove him back and forth from classes. And it was more or less the kind of situation which he was used to because in Europe it was customary for the master teacher to have his apprentices who were completely at his beck and call. The old

⁹⁶ Samuel D. Golden (1931-2002) was associate general counsel for the University of Southern California, after serving as attorney at the Argonne National Laboratory 1954-1962.

tradition of the musician as a kind of upper servant of the household was still not entirely dead in Europe.

Weber; As a high-level servant?

Strang: Yes. Well, remember Haydn, after all. There was a question whether Haydn would be allowed to eat “above or below the salt”. He was simply an employee of the Esterházy, since nobody ever thought of him as anything in the way of a special person. He was just a part of the working staff. To a certain degree I likewise quite voluntarily and happily filled this kind of function as helper and amanuensis to Schoenberg during that period. It was in many ways a very frustrating period for him and for everybody else. He had come to us with a reputation of being an extraordinarily difficult person to get along with, being very autocratic, very domineering and intolerant. I never saw any of that. The effect of being so completely dislocated, having to find his way through an educational system which was so completely foreign to all the European models that he'd been accustomed to. That apparently made him much less domineering than he had been. He was sensitive and had his feelings easily hurt. He was constantly misunderstanding people's motives; he was resentful, for instance, if somebody in one of the faculties where he taught gave a party and didn't invite him and Mrs. Schoenberg. He was often suspicious if a person failed to come and shake hands with him. When he saw somebody on campus who didn't come and shake hands he felt that perhaps he had done something to offend them. Or, vice versa,

he thought perhaps they were intending to offend him, bringing out this kind of personal sensitivity—all of which made it very difficult for him. But somebody had to act as a buffer, and a bridge. and that was my role for the first two and a half or three years he was in Southern California. Incidentally, of course, it meant that I was very closely in contact with the entire exile group from Central Europe, which was at that point taking form here. Schoenberg was on good terms with people like Thomas Mann and the traveling musicians—[Artur] Schnabel particularly. The same went for the Coolidge Quartet, the Bartok Quartet, and the Pro Arte Quartet, as well composers for movies such as Dieter [Leitz?]._

All of these people were milling around together in this little sort of private enclave that they set up, and so I was thrown right into the middle of it all. It was in some ways an extremely interesting business being sort of tossed in among all these people, being just a young fellow with no particular background and no knowledge whatever about the conditions under which they had operated in Europe. Well, that was the basis for my period with Schoenberg. I even for instance drove him up to Oakland [California] when he was asked to come up and conduct some of his works with the WPA Symphony Orchestra [Works Progress Administration].⁹⁷ I shared conducting job on a program that he put on with the Los Angeles WPA Orchestra. I still have a poster with our two

⁹⁷ The Works Progress Administration was a New Deal agency that employed millions of job-seekers to carry out public works projects, including the construction of roads and public buildings.

names linked as guest conductors from 1936 to '37. So this was the kind of personal relationship that we were in. I don't know just what you would like most to have me discuss, since I talked about it a good deal [on tapes] with Vivian Perlis and Claire Rayner, talking about the compositional situation and the educational situation. So I don't know whether you would have rather have me talk about that or more general topics.⁹⁸

Weber: What I'm more interested in is the relations he had with other composers in the area, and particularly with institutions, with the musical profession in general. I would wonder for instance whether his role in the [Berlin] Hochschule [für Musik] had much impact on professional composers here, whether there was any kind of approach, not musically but in any sense institutionally, related to the music that in any way affected what was happening in music in the area.

Strang: Well, now let's set a little background first. He was not generally well known in the area when he came here, and nothing much happened to make him a popular figure in any sense. That is to say, while some of his earlier works were performed off and on—I have mentioned the number of such cases. He was always resentful, for example, that his

⁹⁸ Interview with Gerald Strang by Vivian Perlis, March 1975 in Long Beach California: see Vivian Perlis and Libby Van Cleve, *Composers' Voices from Ives to Ellington: An Oral History of American Music* (New Haven: Yale University Press, 2005), 167-70.

good friend Otto Klemperer, who was then conducting the Los Angeles Philharmonic [Orchestra]; rarely performed a Schoenberg work. And when he did, it was nearly always Schoenberg's arrangements of the Brahms G Minor Piano Concerto [1861], or the Schumann Cello Concerto [1850]. All sorts of things like this.

Weber: So he [Klemperer] played that?

Strang: ...Yes, all sorts of things like that but so far as I can remember Klemperer never really played any original Schoenberg work, do you see? Now Schoenberg resented this. The performances of his works that did take place were in isolated places by local string quartets or by the WPA groups which were very active at the time. [These people] played more contemporary music by far than any other kind than any other musical groups did. So he was not in a position to have much direct influence on public taste, nor did he really have much public exposure. And since he was perfectly well aware of the fact that he was perhaps the outstanding twentieth-century composer—at least he certainly was in his own opinion—and that he had always been under-recognized. This rankled him, that he was not given the exposure and the recognition that he felt he was entitled to. On the other hand, he was very much respected among musicians, in particular by a lot of the people involved in the motion picture industry who were generally rather insecure or unsure of themselves.

Weber: Did they feel guilty?

Strang: Yes, there certainly was a good deal of guilt. They were making money hand over fist [from the movies], and this made them feel to some extent responsible. So, right from the beginning there was a steady stream of people associated with the motion picture industry who took private lessons from him. You asked about the [Berlin] Hochschule business. He was more or less able to handle these people because he was accustomed to handling European students. In the first place, a good many of them were European in origin, and, in the second place, those who weren't had European training. And in the third place, working with private students he was subject to the peculiar dislocations caused by working in the two universities. Moreover, he was not averse to making a buck; in fact, he was perfectly willing to admit that he more or less charged what the traffic would bear with the motion picture people. He thereby strove to make a living and, in part, this enabled him then to take on talented young people who couldn't afford to pay his prices. So the result was that there were quite a lot of young Americans who benefited indirectly.

Weber: Whom he did not charge for lessons?

Strang: Whom he didn't charge at all, or whom he charged a pittance? There were motion picture composers whom he charged twenty dollars a lesson. But there were young Americans—for example, Aurelia de la

Vega—who came along whom he would take on for nothing or for five dollars a lesson or something of that kind.⁹⁹

Weber: Do you think Schoenberg influenced the actual compositions for the movies of these people? Do you think his orchestration technique had any influence upon it?

Strang: It probably had some influence, because that was one of the things that he would work with them on. They would often come to him wanting to be briefed in the secrets of the 12-tone system, even though Schoenberg was very averse to teaching 12-tone music. He used to tell them frankly that it was very difficult to do because it required a great background in music. If they had sufficient background, sufficient skills he would tell them that their best source of information about 12-tone writing was simply to study the literature. And so it's very difficult to pin him down to ask him to explain the true cult of 12-tone music. He was not at all concerned about setting down rules for 12-tone composition, nor was he at all concerned about getting his students to write in 12-tone style—that wasn't his purpose or his aim. They always asked him to, but they hardly get him to do it.

Now, on the other hand, he was always an extraordinarily able critic of other people's compositions, being a constructive rather than a

⁹⁹ Born in Havana in 1925, Aurelio de la Vega has been prominent in the United States as composer, lecturer, essayist, and poet, serving as professor at the California State University, Northridge prior to his retirement.

destructive critic. He had the most acute analytical ability from a purely compositional standpoint that I have seen among all the people I had contact with. If there was a weakness in a piece, or if there was a breakdown or a lack of balance or a lack of convincing someone about something, he would not only recognize the problem and be able to point out with great clarity precisely where it took place. He had an additional knack which was far more significant—putting his finger on the reason why something went wrong. I've had some very good composition teachers in my time, and I've seen that when a composition teacher points out a weakness in a composition the assumption is that your problem lies at the point where the weakness is, and the tendency arises to fix that up. Schoenberg recognized that nine times out of ten the weaknesses resolved something that happened earlier, and he would go back and say "see at this point" in several measures or sometimes more than that ahead of time. With this acuteness I'm sure he must have had some influence on the self-criticism of people who worked with him. But another thing which he could and did do with consummate skill was to point out analogies with other cases. That is, he could almost always go to the literature and find in some famous composition, or by some master composer a similar situation, and say, see how it was done here! Or he would bring in a situation there were several different kinds of solutions for a particular problem.

Now, this ability to go directly to the literature with a very wide knowledge of music in the most incredible detail was tremendously valuable when he found something that a composer was doing that didn't

work. He could then show you in pieces where similar things had been done but did work. It might occur in the rare cases where he referred to his own music. Even though he would rarely use his own music as an illustration, he might occasionally show you how he had solved a problem himself. On the other hand, scoring was something for which he had a very special knack. It doesn't always come off as clearly in his own works as it should, for reasons which may or may not be wrong. But certainly he could criticize scoring, and he was a demon for a straightforward, simple solution for clarity and for precision in whatever one was confronting. He was very apt to strip some of the overblown, lush verbiage from the movie scores of that period, in which case he perhaps had something to do with the breakdown of the [Richard] Straussian type of scoring which was very prevalent in all the big orchestral scores—those lush combinatorial things where you produce juicy blends of sound instead of making use of instruments in the soloistic fashion for their special capacities.

Weber: Did he did work directly upon the film scores that people wanted him to see?

Strang: No. I don't know of any case where he actually worked on a film score. Mostly what happened was that these composers were very anxious to be recognized in the concert world, and they were always working on something to be played by an orchestra or a symphony or a string quartet. George Gershwin all his life long wanted to write a string

quartet, and that was a fairly common feeling among these people. So they were always trying to write an overture or a concerto or something or other which could be performed in the legitimate concert world.

Weber: Were these pieces played?

Strang: They rarely were...

Weber: Very rarely?

Strang: Rarely. I'll give you one example. Oscar Levant was for quite a long while one these pupils, and he wrote a nocturne under his tutelage, which by some hook or crook was eventually published in a new music orchestra series.¹⁰⁰ I was detailed the privilege—I assume it was a privilege—of conducting its first performance with the Los Angeles WPA Orchestra. And we finally managed to pry Levant out of his bed early enough to come down to the morning rehearsal one time. He disliked my version [performance] of his piece enough so that we finally persuaded him to conduct it himself. But I mean, this was the kind of thing which Oscar and almost everybody else in the motion picture colony was looking for,

¹⁰⁰ Oscar Levant (1906 – 1972) was a widely known concert pianist, composer, music conductor, and author who often appeared on radio or television as actor, host, or comedian.

So this was what they would be working on. In so far as these things more or less ran similar to the work they were doing in the motion picture industry, and there might have been some analogy. But he never acted as a score doctor or anything of that kind; in fact, if a person would come to him with a group of previous works, Schoenberg would look through them and usually would shake his head and hum and haw, [and then] he would say, well, now you must try something new. In other words, he was not at all interested in reworking or giving extensive criticism of an existing work. He invariably got his students to work on something fresh and usually something which in a way constituted going back and attempting either something simpler, or even repeating some basic training. All of his younger students had to go back and redo basic species counterpoint, for example. Some of the established composers didn't have to do that, but he would, for instance, tell them to cut a piece down from an orchestral score to a string quartet, or from a large work for orchestra and chorus to an overture or something of that kind, trying to get them to work on something which was less ambitious, and where they could come to grips with problems on a more manageable scale.

Weber: So do you think that he may really have influenced lighter, more contrapuntal textures in movie music?

Strang: That's a very difficult thing for me to offer a really considered opinion on. I don't see how he could have helped having this kind of influence. I can't identify a single concrete instance of it, but his

emphasis on precision, on linear relationships, or contrapuntal relationships, his interest in the soloistic use of instruments, which itself tends to take on linear character—things of this sort certainly must have had some influence. It was very difficult to pin any of these things down, because he never worked directly on that kind of music, ever.

Weber: Now if we might switch to a somewhat different area? With recollection, do you think he related with Peter Yates and the musicians that were dominant in the Evenings on the Roof.¹⁰¹ In the oral history done with Yates, he claimed that Schoenberg came, I believe, to only one of those concerts during the entire time period.¹⁰² How much contact did he have with the concerts and the people around him?

Strang: Well, in the earlier period at least, he was not really very close to the Evenings on the Roof setup. It is true that for his chamber works, his piano pieces and so on, this was about the only group in this area that was regularly attempting to do Schoenberg's works, and he would occasionally come to one of them. There were some perfectly extraneous reasons for his not going—he hated going up to the rooftop studio

¹⁰¹ Dorothy Lamb Crawford, *Evenings On and Off the Roof: Pioneering Concerts in Los Angeles, 1939-1971* (Berkeley: University of California Press, 1995).

¹⁰² Dieter Lietz composed songs for movies to texts by Raimond Erbe, most notably "Was bleiben denn die Gäste" (*What Kept the Guests Around*, 1976).

there, for instance, climbing up the hill. He hated to have Mrs. Schoenberg try to park her car on that steep slope around it, and he always had asthma, bronchial problems—not exactly asthma but bronchial difficulties—and he was not at all good at climbing stairs and things, and he went out very little in the evening in any case. So this was nothing against the Evenings on the Roof business. He just didn't do much of that kind of thing. Later on, of course, the Evenings on the Roof performed practically everything that he ever wrote that was on a modest scale. Yates knew him, but they were not close or frequent contacts. At the same time when Schoenberg was here, Stravinsky was also here. And this made for all kinds of strange complications. Yates and Ingolf Dahl and various others were pretty well committed to the Stravinsky circle.

Weber: Committed in what sense?

Strang: Well in the sense that they saw them a good deal socially. The Evenings on the Roof couldn't perform much Stravinsky because Stravinsky wasn't writing the type of music they were performing. How many string quartets did Stravinsky write, or small chamber ensembles? But they saw one another socially, it was not at all unusual to run in the Stravinskys at the Yates's studio or something of this kind. And there was this curious dichotomy which split the emigrant groups into a Schoenberg and a Stravinsky camp, and it was, for the most part, very difficult to cut across from one to the other. Ingolf Dahl managed pretty

well to bridge; he was persona grata with both Stravinsky and Schoenberg, but very few others were. And of course, really, Ingolf was part of the Stravinsky circle basically.

Weber: And Yates also?

Strang: Yates wasn't exactly a part of the Stravinsky circle but he saw a good deal more of the Stravinskys and the people around them than he did the Schoenbergs and the people around them. Not through any particular intent on his part.

Weber: Through artistic preference?

Strang: It's very difficult. I don't know exactly. I don't know exactly why this would be the case. I think perhaps it was a matter a sort of personal compatibility. And I can't pin that down very well either, since part of it was a matter of personalities.

Weber: Was he perhaps unwilling to accept the more disciple-like attachment that Schoenberg preferred, or might it have been just simply that social character or perhaps even national character?

Strang: Yes, I think it was more likely the latter. I think Peter would have liked to have been on the same terms, same sort of terms, with the Schoenbergs as he was with the Stravinskys. It never quite worked out

that way; there was always a degree of remoteness, sort of standoffishness. It's hard to pin down. I think part of it lay in the fact that Peter was a person whose opinions were always very definite, and he didn't hesitate to express them. And Schoenberg was a person whose opinions were very definite, and he did express them, and they quite often didn't see eye to eye. A degree of mutual tolerance and social contact arose between them, though it was perhaps somewhat limited.

Weber: This was not a problem with Stravinsky?

Strang: I don't think it was a problem with Stravinsky. No, Stravinsky was in some ways, well, oddly enough, more "gemütlich" [cheerful] than the Austrian Schoenberg. He was much more cosmopolitan. In some ways Schoenberg was a rather provincial type.

Weber: An Austrian Bürger.

Strang: Yeah, absolutely. And the, the cosmopolitan characteristics of the Stravinskys meant that there was a far wider variety of personalities and backgrounds and people who revolved around them.

Weber: So Yates saw something to be gained by this close relationship?

Strang: Yes, I would think so. Well I don't really know. I very much hesitate to comment on other people's motivations, they are too often

coloured by your own. I know that both of the Yates were very inclined to a warm relationship with the Schoenbergs though it somehow never gelled quite to that degree. In any case, the influence of the two men tended to cut across the field in such a way that the group of people most influenced by Stravinsky were pretty distinct from the group that were most influenced by Schoenberg. So you had both of their influences being felt in the motion picture colony, among the younger musicians who were coming up, being trained in this area—and there were a lot of them. Their influence was really quite different; their two styles or two attitudes, their two natures, were very different, indeed—though don't ask me to pin down in what way their influences were different.

Weber: What about possible institutions? Did Schoenberg ever make any motions toward starting a concert series of his own, or at least becoming involved in one?

Strang: No, but one thing he did do, he in a sense gave Yates his blessing because of the example of the Verein für Privatauführungen [Society for Private Musical Performances] which he conducted back around the First World War. He had done that sort of thing himself, and so he appreciated what Yates was doing¹⁰³.

Weber: He indicated he felt that?

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Strang: Yes, he did. He was very much in favour of it. He felt in a way that Yates was following the example he had set earlier. So there was a positive relationship in this respect between them institutionally. Well, I would have to say he never made any attempt to deal with the concert world or to set up performances. He had done his share when he was younger, so that was not something he was interested in doing again. His influence in the educational institutions was much less than it should have been. The people down at USC, girls like Julia Howell and Pauline Alderman, and some of the other people around at the time, were most anxious to sit at his feet and to try to help him get established and to get students in contact with him, and so on.¹⁰⁴ But the administration there was strapped; apart from the [Carolyn] Alcin, they had no way of keeping him when UCLA came along and offered him a regular professorship. And the department at UCLA at that time was so strictly a school of teacher education in music that there was practically nobody there that he could even talk to seriously.

Weber: What motivated them to make a counteroffer?

¹⁰⁴ Pauline Alderman was Chair of the Music Department at USC; see Crawford, *Evenings On and Off the Roof*, 278. Julia Howell was another of the earliest composition students who taught there; see <https://music.usc.edu/throwback-thursday-usc-thornton-composition-faculty-1952>.

Strang: I think it was purely and simply the fact that the people ...I think perhaps [Vern Oliver] Knudsen, by the way was one of the people who was influential, that was before Knudsen became a university administrator, but he was quite influential, and he knew them.¹⁰⁵ I think that he and other people in the administration realized that the Music Department needed some people with names and reputations, and Schoenberg represented that.

Weber: Did they hire him for much the same reasons they hired [Andrew] Rubsamen?

Strang: They hired Andrew Rubsamen because they needed some PhDs on the faculty, and so they immediately and snapped up two or three young PhDs.¹⁰⁶ Bob Nelson came along the next year or two, you may not know him, but he came in also as a musicologist. They felt that they needed advanced degrees and prominent personalities who were not primarily committed to teacher training. On the other hand, this made all

¹⁰⁵ Vern Oliver Knudsen knew Strang in regard to architectural acoustics; he served as Vice-Chancellor and then Chancellor at UCLA from 1959 to 1960. See

https://oac.cdlib.org/findaid/ark:/13030/kt109nc33w/entire_text/

¹⁰⁶ Andrew Howard Rubsamen (1911-1973), a specialist in medieval music, joined the UCLA faculty in 1938. See <http://texts.cdlib.org/view?docId=hb9k4009c7&doc.view=frames&chunk.id=div00043&toc.depth=1&toc.id=>

sorts of difficulties for Schoenberg because of the character of students that were in his classes, as well as the fact that he was, as a matter of course, expected by the music department Chairman to teach classes of twenty to thirty students just like other professors. He was brought to the university mainly because of his name and his reputation, and partly because he was controversial. That's what started interest in him.

Weber: What dimensions of his career shaped his reputation there?

Strang: You see, he was recognized as a culturally dangerous individual. That is, apart from being a Jew, he was also considered to be a Kultur-Bolshevist. And while nobody suspected him of being a communist, heaven forbid, on the other hand, there had been enough scandal about his music and there was enough controversy among critics, so that his name was constantly being brought up. His presence on the university staff made the university seem to be a progressive and broad-minded institution. And of course, universities are constantly hiring controversial people to show that they are not quite so stuck-in-the-mud and conservative was their image.

Weber: So it [the university] was ambitious then, you had an administration that was ambitious for a national name?

Strang: Right. They wanted an international name, absolutely, and they wanted something more than a national name—and they wanted people with degrees.

Weber: The Hochschule position that he had held earlier.

Strang: That was certainly an element in the thing. So his going to UCLA was not a function of an ongoing program there into which he fit. From the university's standpoint, this was simply a matter of grabbing somebody who because of his reputation and because of his standing would be an asset. It was the same motivation that leads universities to compete for Nobel Prize winners.

Weber: I'm interested in this because back then UCLA, to my understanding, that that tendency was not limited to Schoenberg. It sounds like you're saying that their imperialistic tendencies were very strong in inception at that time.

Strang: Yes. This was not too long after the former normal school, the Los Angeles Normal School, was converted into a university branch. And it was not only three or four years after it moved from the present City College campus out to Westwood. And so this was the time when UCLA had to be converted, if it was ever going to be, into an outstanding institution. They had to draw in outstanding people, presumably superior people, and build a reputation from practically nothing. And that was

very much in the minds of the administrators, indeed the trustees and the people at Berkeley. Actually, the UCLA campus was not independent as it is today; it was still very much under the thumb of Berkeley. And so probably a lot of these policy decisions were the result of the academic viewpoint which existed then in Berkeley. Berkeley was already recognized as one of the big, important universities in the country.

Weber: Was the next composer hired Lukas Foss?¹⁰⁷ Or was there someone in between?

Strang: No, I don't think there was anybody in between...

Weber: As I remember it, Foss came in '53.

Strang: No one else arrived, and Foss must have come about then.

Weber: He was a student privately before, wasn't he?

Strang: With Schoenberg? I don't recall that Foss was ever a student of Schoenberg, though that doesn't mean he wasn't. During the latter part of his [Schoenberg's] life I had very little to do with these teaching activities—I was still working with him on the theoretical books. But after

¹⁰⁷ Lucas Foss (1922-2009) moved with his family from Germany to the United States in 1937, becoming prominent not only for experimental music but also as pianist and conductor of contemporary music.

the beginning of the war, when I had to go into Douglas, from that point on I no longer had any contact with his teaching works to speak of.

Weber: Do you think he [Schoenberg] had an impact on department at UCLA?

Strang: Well at the time, probably very little. At least it wasn't obvious. Schoenberg himself was constantly frustrated. He had hopes and plans, he apparently was given some hope that he would be allowed to develop a theory and composition program and staff it. And at the time he very anxious to get me on the regular staff as a start toward developing such a school of composition, which never did develop really until after his death, and then on an entirely different basis than he would have established.

Weber: But he did aim toward that?

Strang: Yes. And somebody in the university administration must have encouraged him in that point of view because in the earlier years of his work at UCLA he was very much concerned about that kind of development. But as it turned out, they hired more musicologists than they did composers. They didn't back up whatever encouragement they gave him by hiring other composers or by developing a staff of people in the theory area who could build to a graduate program in composition or anything of the sort he had in mind. So in this sense, I think the situation

at UCLA was always very frustrating to him. He felt that they had sort of led him down the garden path, that they implied that he would be the actual, if not the nominal director of a school which he was to develop—and then he was given no resources, no assistance in developing staff for such a school. This was always a disappointment to him.

Weber: Do you think his presence at UCLA had any impact on the programs in USC?

Strang: Yes, probably. USC didn't have the resources to go out and attempt to get a world-renowned figure of his stature. But they did make some effort to upgrade their composition staff. This was to some extent behind their hiring of people like Ingolf Dahl, whom I mentioned earlier, and a little later Halsey Stevens, and so on.¹⁰⁸ I think that they were attempting to build up a staff and a program in composition to do the sort of thing that Schoenberg had been frustrated in doing it in UCLA. To what degree this resulted in Schoenberg being at UCLA is very hard to say. There was the other coincidence, that Carolyn Alchin had died and left them what was for those days a pretty goodly sum of money which was earmarked for composers.¹⁰⁹ I'm sure that the rivalry with UCLA had

¹⁰⁸ Halsey Stevens (1908-1989) taught at the University of Southern California; he composed instrumental music extensively and published *The Life and Music of Béla Bartók* (1953).

¹⁰⁹ Pauline Alderman, *We Build a School of Music*, 100, 224, 255f.

something to do with their bringing in Ernest Toch.¹¹⁰ At that time Toch had reputation perhaps was not so great than Schoenberg's, but still he was widely known and respected as a composer. And he was also well thought of as a teacher. So this was certainly related to the fact that Schoenberg was at UCLA.

Weber: Did they perform much of his music?

Strang: Well, you have to recognize that in those days nobody played very much of anybody's music if it was the least bit contemporary, and this was even more true of American composers. We now tend to think of people like, say, Roy Harris and Aaron Copland, as having then been pretty prominent people and having been played a lot. But in '30s and '40s, Harris and Copland were played very rarely, and then nobody was played much¹¹¹. There were occasional performances; for instance,

¹¹⁰ Ernst Toch (1887-1964) was a concert a self-taught composer who left Germany to teach composition at the New School for Social Research in New York and then at the University of Southern California from 1937 to 1948.

¹¹¹ Roy Harris, the byname of Leroy Ellsworth Harris (1898-1979), was a composer and teacher who came to be regarded as the musical spokesman for the American landscape. Aaron Copland (1900—1990), taught composition and often conducted works by American composers, was often referred to as the Dean of American composers.

people who were conducting the Los Angeles Philharmonic at that time felt that once or twice, maybe three times a year they had to make some sort of a bow toward contemporary music. They were much more inclined to play a symphony of Toch than to play a work of Schoenberg, on the doubtful grounds that it would be more acceptable to their regular audiences.¹¹²

Weber: Were they playing much music around universities at all? Where the universities sponsoring many concerts?

Strang: The universities themselves were not active in sponsoring concerts. And certainly they were not putting on many of their own. USC was by that time performing opera, and so also at [Los Angeles] City College. Hugo Strelitzer by this time had come to Los Angeles City College, and he started the first real opera workshop program, which was a first only an evening program, but for many years he did what later UCLA began to do with [Karl] Popper.¹¹³ Popper first came to USC, and also went over to UCLA. So all of these people were having their influence in goading or helping colleges to become active in producing

¹¹² See extensive references to Ernst Toch in Kenneth H. Marcus, *Schoenberg and Hollywood Modernism* (Cambridge: Cambridge University Press, 2016).

¹¹³ Hugo Strelitzer (1896-1981) led his own choir, which made many recordings and often performed with the Hollywood Bowl Choir Orchestra.

music. But prior to 1950 there still wasn't very much performance going on in the universities as such. There wasn't a student orchestra which was capable of doing much contemporary music in those days, the level of performance skills was not high enough.

Weber: There was no student orchestra at all?

Strang: Well, there were orchestras, but they did very little public performing, and particularly they did very little contemporary music. There were no other orchestras around worth mentioning; you see, the community symphony orchestra movement didn't get really going until the '50s. And so there wasn't much opportunity of that sort. As long as the WPA [Works Progress Administration] music program was going, there was a second orchestra in the Los Angeles area, but that was only up until about the time of the war.

Weber: Where else might contemporary composers, and particularly Schoenberg, be played, beside the Monday Evening Concerts? Were there any other place which did so occasionally?

Strang: There were rare things, there were occasionally specially subsidized concerts. The most conspicuous of them in that period was the group of concerts at UCLA which was subsidized by Elizabeth Sprague

Coolidge.¹¹⁴ In that period Elizabeth Sprague Coolidge was perhaps the most active patron of chamber music and of contemporary music. She used to travel around the United States with a string quartet in her wake, first the Pro Arte Quartet, and then to some extent later the Kolisch Quartet.¹¹⁵ And there was a period of seven or eight years where the Belgian Pro Arte String Quartet was practically the “train to her gown,” that is, wherever Mrs. Coolidge was, there was the Pro Arte Quartet, and she was subsidizing concerts and concert series. This was about the time when she established the Elizabeth Sprague Coolidge Foundation at the Library of Congress and built that hall [known by her name].¹¹⁶

Weber: But did she come through here, maybe every other year maybe?

¹¹⁴ See Cyrilla Barr, *Elizabeth Sprague Coolidge: American Patron of Music*. New York: Schirmer Books, 1998.

¹¹⁵ The Pro Arte String Quartet, one of the most distinguished such ensembles in the twentieth century, was founded in Belgium and became affiliated with the University of Wisconsin-Madison in 1941. The Kolisch Quartet was founded in Vienna in the early 1920s as the New Vienna String Quartet, originally for performance of works by Schoenberg, but emerged as a major such ensemble world-wide.

¹¹⁶ Her partnership with the [Library of Congress](#) resulting in the construction of the 500-seat [Coolidge Auditorium](#) in 1924, specifically intended for chamber music.

Strang: Yes. For some period, to my knowledge, during the first half of the '30s, she habitually spent her summers at Mills College in Oakland, where she would subsidize the chamber music series there. And this was where I first became acquainted with the Pro Arte Quartet. Then in '37, I guess, she developed the idea of presenting a series of concerts by the Kolisch String Quartet, featuring one of the Schoenberg string quartets opposite one of the late Beethoven quartets in each concert. There were four of these concerts, because the fourth quartet had just been completed. And that was given first at UCLA, and then she paid for its repetition up and down the Pacific Coast. In fact, I travelled with them up to the Bay Area and gave lectures on the Schoenberg quartets at Stanford and Berkeley and elsewhere.

Weber: What kind of halls were they held in?

Strang: They were, they were held in pretty good halls, on the whole, for instance, in the big hall at UCLA.

Weber: Bovard?

Strang: Not Bovard [which is] at USC. What is the name at UCLA?.

Weber: Royce

Strang: Royce. Yes, they were held in Royce.

Weber: Did they fill Royce?

Strang: Did they what?

Weber: Filled Royce.

Strang: As a matter of fact, they had a pretty good audience. I wouldn't say they filled Royce, but they filled, say, two thirds of the lower floor [about 600?]. Now the reason they did was because this was a big social function. It was sponsored by Mrs. Coolidge, and so therefore it had to be a thing that one was see at. There were a good many socialites who wouldn't otherwise have paid any attention to performance of works by Schoenberg, [though they] certainly didn't really know what they were listening to. But that was a prominent but isolated occurrence. There wasn't very much of that sort of thing going on either. There really wasn't much opportunity outside of Yates's Evenings on the Roof.

Weber: Did Yates do all this despite his greater commitment to Stravinsky, like you say, virtually everything of that kind?

Strang: Yes. And he was not at all discriminative in the negative sense. That is to say, it was his attempt to do about as much Schoenberg as he could do within his format, and about as much Stravinsky as he could do.

Weber: The people who went there, could they be termed followers of Schoenberg and Stravinsky? Did these people mingle at the events?

Strang: In the concerts, yes. And a lot of a lot of the people in the two camps were pretty good friends outside of it. But it was a curious thing

that if one went to a concert, at which both Stravinsky and Schoenberg were present, the polarization could immediately be seen taking place.

Weber: This really did happen?

Strang: It happened occasionally, though most of the time they weren't at the same functions. But once in a while this would happen, and when it did happen Schoenberg would come out during the intermission on one side, and Stravinsky would come out on the other side, and two groups would form as far apart as they could get in the foyer. And around one would be *his* disciples, and around the other *his* disciples. And at that time there was no cross traffic at all. That situation existed up until about the time of Schoenberg's death. Neither of them would have any use for the other, even though they would not say anything negative about the other. Up until that time there was no cross-traffic at all.

Weber: So that really happened.

Strang: It did happen, though not all that often since they went to rather different events. It was a very strange situation; this polarization could be seen taking place, Schoenberg's disciples would be on one side of the room, and Stravinsky's on the other. And of course Stravinsky would not dare to try anything with 12-tone technique, and it was socially and musical impossible to do until after Schoenberg's death [in 1951]. It would have been socially and politically impossible for him to do. Neither

of them would say anything positive about the other, and neither of them would say much of a negative order. And Stravinsky didn't even dare to try anything 12-tone until after Schoenberg's death.

Weber: So that really happened. It was his attempt to do about as much Stravinsky as he could, and the same for Schoenberg. Who else among people who might be known today?

[Technical programs interrupted the discussion briefly.]

Weber: It's working again.

Strang: Okay. Well, I was about to say that USC was concerned about developing a program in composition, and it was partly a result of the Alchin Foundation money and the impetus this gave the composition field in the mid-'40s. After that they hired Ernst Toch to come in, and Ernst was there when I went back for my PhD—in fact, he was the chairman of my doctoral committee.¹¹⁷

Weber: Was there any sense of competition with UCLA, bringing [Toch] in to match Schoenberg?

¹¹⁷ Ernst Toch (1887-1964) took prominence as a composer in Weimar Germany and went into exile variously in Paris, London, New York and Los Angeles, where he composed numerous film scores.

Strang: I think so. I'm convinced that that was one of the motivations. One of the things they could do with the Alchin money was to either provide assistance for one thing or another such as copying manuscript paper to support student composers and subsidize the performances. They could also invite in guest professors, and they chose to do it in that way. I'm sure that the rivalry with UCLA had something to do with their bringing Ernst Toch in. Toch was at that time a person whose reputation perhaps was not so great as Schoenberg's, but he was still he widely known and widely respected as a composer. And he was also well thought of as a teacher. So this was certainly related to the fact that Schoenberg was at UCLA.

Weber: Did they play much of his music?

Strang: [Laughs] Well, you have to recognize that in those days, nobody played very much of anybody's music if it was the least bit contemporary. Now, this was even more true of American composers. We now tend to think of people like, say, Roy Harris and Aaron Copland, as having been pretty prominent people and are having their music played a lot. But in the '30s and '40s Harris and Copland were played very rarely; indeed, nobody's music was played much. There were occasional performances; for instance, people running the Los Angeles Philharmonic might once, twice, or three times a year might make some sort of a bow toward contemporary music. They were much more inclined to play a symphony

of Toch than to play a work of Schoenberg, on the doubtful grounds that it would be more acceptable to their regular audiences.

Weber: Were they playing much music around the universities at all? Where the universities sponsoring many concerts?

Strang: The universities themselves were not active in sponsoring concerts. And certainly they were not putting on many of their own. By that time USC was doing a bit, and [Los Angeles] City College did put on opera. By this time Hugo Strelitzer had come to Los Angeles City College, and he started the first real opera workshop program [in the LA area], which was for many years an evening program.¹¹⁸ For many years he did what later UCLA began to do with Popper. Well, Popper first came to USC and also went over to UCLA, and so all of these people were having their influence in goading or helping the colleges to become active in producing music¹¹⁹. But prior to 1950 there still wasn't very much performance as such going on in the universities. There wasn't a student orchestra, which was capable of doing much contemporary music in those days; the level of performance skills wasn't high enough.

¹¹⁸ See an interview with Dorothy Lamb Crawford in the *Los Angeles Times*: <https://www.latimes.com/archives/la-xpm-2009-jul-16-et-book16-story.html>.

¹¹⁹ Sir Karl Raimund Popper (1902-1994) was an Austrian-British philosopher and social commentator who was highly influential among philosophers of science,

Weber: There was no orchestra at all?

Strang: Well, though, there were orchestras, but they did very little public performing, and particularly they did very little contemporary music. Now, there were no other orchestras worth mentioning around; you see, the community symphony orchestra movement didn't get really going until the '50s. And so there wasn't much opportunity of that sort. As long as the WPA music program was going, there was a second orchestra in the Los Angeles area, but that was only up until about the time of the war.

Weber: Where else might contemporary composers, and particularly Schoenberg, be played when he became famous, beside the Monday Evening Concerts or any other place, at least occasionally?

Strang: There were rare things; there were occasionally specially subsidized concerts. The most conspicuous of them in that period was the group of concerts at UCLA, which was subsidized by Elizabeth Sprague Coolidge. In that period Elizabeth Sprague Coolidge was perhaps the most active patron of chamber music and of contemporary music.¹²⁰ She

¹²⁰ Cyrilla Barr. *Elizabeth Sprague Coolidge: American Patron of Music* (New York: Schirmer Books, 1998). See also Ralph P. and Cyrilla Barr, eds, *Cultivating Music in America: Women Patrons and Activists since 1860* (Berkeley: University of California Press, 1997).

used to travel around the United States with a string quartet in her wake. First the Pro Arte Quartet and then to some extent later the Kolisch Quartet, there was a period of seven or eight years, where the Belgian Pro Arte String Quartet was practically “the train to her gown,” that is to say, wherever Mrs. Coolidge was, there was the Pro Arte Quartet, and she was subsidizing concerts and concert series. This was about the time when she established the Elizabeth Sprague Coolidge Foundation at the Library of Congress and built that Hall [the Coolidge Concert Hall].

Weber: But did she come through here every other year, maybe?

Strang: Yes, for some period to my knowledge during the first half of the ‘30s, she habitually spent her summers at Mills College in Oakland, and then she would subsidize a chamber music series there, and this was where I first became acquainted with the Pro Arte Quartet. It in ‘37, I guess, that she developed the idea of presenting a series of concerts by the Kolisch String Quartet.¹²¹ The concerts might feature one of the Schoenberg string quartets opposite one of the late Beethoven quartets, and originally there were four of these concerts because the fourth quartet [of Schoenberg] had just been completed.¹²² After that was given

¹²¹ The Kolisch Quartet was founded in Vienna by violinist Rudolph Kolisch; composers who wrote works for the ensemble included Schoenberg, Alban Berg, Anton Webern, and Béla Bartók.

¹²² These pieces included the String Quartet No. 1 in D minor, [Op. 7](#) (1905), String Quartet No. 2 in F# minor, Op. 10 (1908), String Quartet

first at UCLA, she paid for its repetition up and down the Pacific Coast. In fact, I traveled with them up to the Bay Area and gave lectures on the Schoenberg quartets at Stanford and Berkeley and elsewhere.

Weber: What kind of halls were they held in?

Strang: They were held in pretty good halls on the whole, for instance, in the big hall at UCLA.

Weber: Bovard Hall?

Strang: No, Bovard is at USC. What's the name of the one at UCLA?

Weber: Royce.

Strang: Royce. Yes, they were held in Royce.

Weber: Did they fill Royce?

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No. 3, Op. 30 (1927), and the String Quartet No. 4, Op. 37 (1936).

Schoenberg, and who certainly didn't really know what they were listening to. But that was a prominent but isolated occurrence. There wasn't very much of that sort of thing going on either. There really wasn't much opportunity outside of Yates's Evenings on the Roof.

Weber: Yates did it despite his greater commitment, like you say, to Stravinsky?

Strang: Yes.

Weber: ...other than for Schoenberg.

Strang: Yes. And he was not at all discriminative in the negative sense. That is to say, it was his attempt to do about as much Schoenberg as he could do within his format, and about as much Stravinsky as he could.

Weber: So the people who went there turned variously toward Stravinsky or Schoenberg. Did people mingle at these events?

Strang: In the concerts, yes. And a lot of the people in the two camps were pretty good friends outside of it, but it was a curious thing that if one went to a concert at which both Stravinsky and Schoenberg were present, the polarization could immediately be seen taking place.

Weber: That did happen?

Strang: It happened occasionally. Most of the time they weren't even at the same functions. But once in a while this would happen, and when it did happen Schoenberg would come out during the intermission on one side, and Stravinsky would come out on the other side, and two groups would form as far apart as they could get in the foyer—around one would be his disciples around the other would be his disciples. At that time there was no cross traffic at all. That situation existed up until about the time of Schoenberg's death. And, of course, neither one would admit to having any use for the other, and neither one would say anything particularly negative about the other, but neither of them would say anything very positive about the other. Stravinsky didn't even dare experiment with 12-tone music until after Schoenberg's death, that would have been socially and politically impossible for him to do. With that strange situation the polarization between the Stravinsky and the Schoenberg axis was a very strong thing.

Weber: Who else of the people that might be known today could you name who were in the two camps?

Strang: Who were in the two camps? Well, I'm not very good at dredging names out of my memory in this sort of a situation. There were quite a number of young people, from USC, who travelled in the Stravinsky orbit, [Ingolf] Dahl being the most prominent of them, and the then up-and-

coming young conductor who later became his amanuensis and collaborated in his books.¹²³ But...What's his name?

Weber: Bill [William] Kraft.

Strang: Kraft, yes. Now Kraft was coming along in the late '40s and early '50s. In fact, he premiered a piece of mine, and, interestingly enough, conducted and promoted performance of Schoenberg's works quite actively, particularly in those early days. And yet, for all practical purposes, he became very soon a member of the Stravinsky circle.

Weber: At that time he was still performing and conducting Schoenberg and recording Schoenberg, do you remember? Then you'd say that there really was a sense of a political split?

Strang: Oh, yes.

Weber: Very self-conscious and very wide-ranging.

¹²³ Ingolf Dahl (1912-1970) was named Walter Ingolf Marcus at his birth in Hamburg to a German Jewish father and a Swedish mother; see https://en.wikipedia.org/wiki/Ingolf_Dahl. He produced a performing translation of Schoenberg's *Pierrot Lunaire* in English and translated other of Dahl's works.

Strang: Yes. It was a split of major importance, and it was very difficult to bridge across.

Weber: Would you say that happened in each camp?

Strang: Well, I don't know; if I were to try to resurrect that I'd want to sit down and sort of go over names.

Weber: I can provide some lists...

Strang: So you see something of that sort. I wouldn't want to do it off the cuff like.

Weber: I might get you a list of names.

Strang: Well, yeah, we could do something of that sort. I would point out, however, that there were a lot of European composers who were not a part of this polarization. They may have leaned in one direction or another, but they weren't really part of the cliques. In a sense, Krenek was a part of the Schoenberg tradition, and this is obvious because he became one of the most prominent serialists and 12-tone composers. But at that time Krenek was not really a part of the Schoenberg circle, in a very clear-cut fashion.¹²⁴ Paul Pisk was also with the Schoenberg group

¹²⁴ Ernst Heinrich Krenek (1900-1991) was an Austrian of Czech origin began who living in the U.S. in 1937; he explored atonality, wrote a study

back in the days of the Verein der Privataufführungen [Society for Private Performances], but he also retained a degree of independence.¹²⁵ He wasn't a part of the Stravinsky group, but he wasn't a part of the Schoenberg group; indeed, Ernst Toch was never a part of either of these groups. He was actually to some degree isolated from them¹²⁶.

Weber: Isolated in general?

Strang: Well, the Schoenbergs and the Tochs rarely met at the same parties socially, they rarely had any contact with one another, even though they lived less than half a mile apart. There was one period there when I was working on my doctorate when Toch asked me—or his publisher asked me—to edit the book *Shaping Forces in Music*, which if you haven't read you should look at it's a very good book. So, I was spending my mornings at Toch's, working on his book, and then after

of Johannes Ockeghem, and published *Horizons Circled: Reflections on my Music*.

¹²⁵ Paul Amadeus Pisk (1893–1990) was a composer, conductor, pianist, musicologist, and teacher who was born in Vienna and spent much of his career in Los Angeles.

¹²⁶ Ernst Toch, (1887-1964.) was a concert pianist and one of Weimar Germany's most celebrated composers; he emigrated to the U.S. but continued doing concert tours in Europe after World War II. See his *Shaping Forces in Music: An Inquiry into the Nature of Harmony, Melody, Counterpoint, Form* (New York: Dover Publications, 1977).

lunch going to spend the afternoon working with Schoenberg on the *Fundamentals of Composition*. This was also just the time when Schoenberg's controversy with [Thomas] Mann broke out over the *Doctor Faustus* business.¹²⁷ Here I was, shuttling back and forth [between Schoenberg and Stravinsky], and so I had to be very careful that I didn't repeat in either household things that were said in the other.

Weber: Was it difficult socially?

Strang: Was it difficult for me to go back and forth between the two? Well, no, I was always on very good terms with both. But I didn't go out of my way to mention that I'd just come from Toch's place when I went to Schoenberg's in the afternoon. For all they knew I drove directly from Long Beach.

Weber: But they did know that you were working with the other.

Strang: Yeah, sure. Toch know I was going to Schoenberg's and Schoenberg knew that I was working under Toch for my doctorate. Sure, they knew about it. But they practically never met. Part of it was the fact

¹²⁷ *Doctor Faustus* is a novel written by Thomas Mann, published in 1947 as *Doktor Faustus: Das Leben des deutschen Tonsetzers Adrian Leverkühn, erzählt von einem Freunde* ("Doctor Faustus: The Life of the German Composer Adrian Leverkühn, Told by a Friend").

that Mrs. Toch didn't belong to the same social circles in Vienna that Mrs. Schoenberg did. And the Kolisches...

Weber: What kind of differences?

Strang: Well, the Kolisches were kind of upper-crust musical society among the Jewish colony in Vienna, you see, and Mrs. Toch was looked upon by Mrs. Schoenberg as being, well, not quite up to their social level. And so there was always this in the background, the fact that they, there was some kind of social misfitting that dated clear back from the days of Vienna.

Weber: In fact what was the nature of Kolisch family?

Strang: The Kolisch family were an extremely interesting bunch. The best known of all of them was Rudy Kolisch.¹²⁸ I always liked and admired Rudy enormously, I admired him particularly for the incredible feat of retraining he went through—do you know about his career as a musician? He started as a concert violinist and he was on the concert circuit, and one summer at one of the resorts in the Austrian mountains an American friend happened to slam a door and crush the tip of his little finger of his left hand, which meant it was impossible for him to finger the violin. This

¹²⁸ Rudolf Kolisch (1896-1978) was a Viennese violinist and leader of a string quartet. Numerous works were written for this ensemble by Schoenberg, Alban Berg, Anton Webern, and Béla Bartók.

of course obviously ended his virtuoso career instantly. But he had such determination and such psychological self-control that he was able to get a left-handed violin and completely reverse his reactions, then bow the left hand and finger with the right and become accepted again as a violinist of virtuoso class. He never went back to the solo circuit at that time because he formed the Kolisch String Quartet, and of course they always played with the first violin and the second violin, backward from the usual pattern. It always looked kind of strange when you saw them on the stage.

Weber: But you say that that his family was highly placed in Vienna?

Strang: Apparently that seems to be the case, this is the impression I got: Mrs. Kolisch was a very highly cultured, elegant woman, and of course, Trudy was trained as a stage director. Mrs. Schoenberg was Trudy's sister and I had another sister whom I taught to drive after she came to this country. The whole group of people were obviously of upper-crust social background as it was in that period. And they apparently were quite well-to-do because they wouldn't otherwise have been able to provide the social advantages and the very fine training that these people got.

Weber: You don't remember what their father was?

Strang: The Kolisch's father? I don't know anything about the father. I think he died before they came to this country. At least he was never around when they were here.

Weber: What did he do in business?

Strang: I don't know what he did but there must have been some resources from the past. There must have been considerable wealth there before they left Europe.

Weber: Probably, I imagine, of a business nature, allowing the younger generation to go into artistic professions which even in the highest circles did not pay well.

Strang: Of course, that's one of the reasons I make that assumption. But everything about them—their manners, the way they talked, the kind of parties they put on, the sort of entertainment they did—all of these things indicated the sort of social background which still at that time allowed you be so seen in “elite social circles,” the sort of thing which disappeared in our time, there's not much of that left.

Weber: In fact, I wonder, in Schoenberg's case, his father being a shoe merchant, as I remember it, whether this lower-middle class origin had remnants or any kind of identifiable social characteristics, either problems or advantages, whether all this came from his origins outside

the elite in Vienna. In fact, perhaps that could broaden all this, since his mother apparently converted to Catholicism and he rebelled against it, shifting into Protestantism. I'm not that interested in the religion involved, it's rather the social implications. The mother clearly was ambitious, she conformed with the dominant religion in the society. Do you remember hearing anything about his family life in terms of his father's profession, along with their social values?

Strang: Now that seems very interesting. I haven't ever given this particular thing particular thought regarding the innumerable hours I spent with him, working and socializing, the hundreds of lunches that we had together...

Weber: Being In their homes?

Strang: Yes, sure. We'd ordinarily work from 9 to 12 [AM] and we'd have lunch for a couple of hours, and then we'd work another couple of hours. I was working with him on his theoretical works or helping him formulate some of the other writings. This casual conversation occurred a great deal on a purely informal basis. With all of that sort of free-wheeling, unfettered social contact with him and with the family, I can't ever remember Schoenberg talking about his father or his mother. Not even once. This was something which was well behind him, you know. Have you ever asked anyone about any influence from his social status? All I

can say about that is that he had all the earmarks of a middle-class upbringing, which is what you would expect.

Weber: Do you mean “middle class” not in the sense of “bourgeois”, but rather just in a sense of “middle”?

Strang: Yes, That’s what I would call it in our terms.

Weber: Our terms rather than what?

Strang: Not in the European terms, nothing so definite as what the Marxists call “bourgeois”. That means rather that he was articulate, he was literate, he did not use bad language.

Weber: Oral [“proper”] to a fault?

Strang: Yes, indeed. He apparently had not been thrown in with any sort of clear-cut industrial, proletarian or even commercial type of background as far as one could judge from the way he expressed himself. The opinions he had. In other words, struck one as being middle class but a person who really had gotten into the artistic world very young and was more influenced by the way in which European musicians lived and worked. [He was also influenced more] by his contacts in the artistic field than he was by any social conditions or the manners and attitudes of his family in particular. He must have been for all practical purposes pretty

well estranged from his family quite early. I don't mean that he necessarily left them or anything like that. But I mean that their influence was certainly not evident as far as anything that I saw. And I have to remember that he was already fifty when I first met him, or fifty-one. As a person matures he should be pretty well over the direct influence of his childhood—by then it shouldn't be too obvious. So, I really can't tell you anything about his personal background from my contact with him, this never been a subject of discussion.

Weber: And a certain cosmopolitanism was lacking in him?

Strang: Yes. He was cosmopolitan in one sense, that he had obviously been all over Europe and he knew people, he knew artists from all nations and all strata. He was cosmopolitan in that sense, but his personal views lacked the urbanity or the cosmopolitanism seen, for instance, in Stravinsky. This was not at all the same kind of a personality, perhaps for very good reasons. One must remember that Stravinsky left Russia just after the turn of the century and lived in France for twenty-five or thirty years before he came to this country. He was an expatriate for thirty-odd years before Schoenberg became an expatriate. And so he would naturally be more international and more cosmopolitan than Schoenberg, who up until his coming to the United States lived essentially, exclusively, in the Austro-German musical orbit.

Weber: Living in two cities.

Strang: That's right, essentially two cities.

Weber: Within distinctive, limited professional circles.

Strang: Precisely.

Weber: So you don't remember him talking, or even getting far beyond musical circles?

Strang: However, in that period many of his pupils were more or less politically involved, Webern with the workers choruses in Vienna, and Eisler writing for the same kind of an outlet. A number of these people became Marxists or became associated with socialism or socialist-communist activities.

Weber: So there were more than just Webern and Eisler, there was also a considerable....

Strang: Yes, Webern and Eisler are the two names that come to mind. But at the time I remember hearing of others from the Schoenberg group who were involved in some of this, and that was not to be wondered at since people from all sorts of backgrounds were being drawn into that kind of movement.

Weber: But I think about Berlin, particularly in the '20s, a city under siege in terms of social conflict that was bitterly torn. I wonder whether he really had been isolated at all from socialist movements or whether music had had a significant such evolution—he certainly had had it before he came here [to the U.S.], and probably also Eisler and Webern [had such experience]?

Strang: Schoenberg was essentially a political animal [of his own kind]. I think even in Europe that he simply refused to involve himself in the politics of it all. Now, there are both positive and negative aspects to that statement; for one thing, he was intensely loyal on a personal basis. [By contrast,] Webern was involved with all the workers choruses, and Eisler wrote music for the proletariat and was prominent in the Communist Party internationally—all this sort of thing, and that didn't faze him [Schoenberg]. He was not a communist, he had no communist sympathies, but he never any time was willing to say or do anything negative about these people, because he simply ignored those tendencies.

Weber: Did he talk about them?

Strang: He talked about politics to some extent, but his political ideas tended to be quite naive and quite obvious. He had a certain elitist tendency which never however got associated with Nazism or Fascism.

He was certainly very negatively inclined on those counts, and, being a Jew, he would almost have to be. But, for example, at that time there were a number of organizations that grew up around opposition to Fascism and Nazism, leading toward war on fascism most prominently. A good many of the other immigrants lent either monetary or other support to these groups. Schoenberg would never have anything to do with them, even though they were not precisely political groups. They were quasi-political, their aims basically humanitarian, but they became politically aligned in that very heavily polarized situation.

Weber: One thing that makes me...

Strang: I would call him essentially “apolitical,” you see. The opinions he expressed were more feelings of not being able to understand how a thing was going to happen, or how a political action or a political movement was not comprehensible in humanitarian terms—something of this kind. He never showed any signs, at least in my acquaintance, of being politically aligned at any time or in any particular direction. Indeed, I was amazed that he was not more violently anti-Nazi than he was.

Weber: He was not intensively...

Strang: He was not, of course, pro-Nazi. And how could he be under the circumstances? But he was not in any sort fiery as an anti-Nazi, he was

simply non-political. Now, it may be that in part he felt that because he was an immigrant in an environment where political alignments could be extremely dangerous to people. He may have felt that he just had to hold his peace and try to keep himself disconnected from everything of this sort. There are a lot of those people who simply refused to express themselves in political terms. But I don't think that was his motivation, because he didn't hesitate to sponsor or to speak favourably about Eisler and Webern. When Eisler came out here he was well known as being a communist sympathizer, and yet he [Schoenberg] helped him to get a job. When Toch had his heart attack, and Max Krone was looking for someone to take his place for some of the classes at USC, I remember that Max Krone asked me to check with Schoenberg when Toch recommended Eisler for that position.¹²⁹ And I did, and Schoenberg was glad to recommend him—he said, “he is a very able musician, he should be able to do this very well.”

Weber: But what about *Moses and Aaron*? Did he ever talk about its political dimension?¹³⁰

¹²⁹ Max Krone was a member of the music department at USC in the 1950s, and his main renown came from founding the Idyllwild School of Music and the Arts; see the extensive discussion of him by Alderman in *We Build a School of Music*. He published widely in the popular press, for example in the children's song books called *Together We Sing*.

¹³⁰ *Moses und Aron* (*Moses and Aaron*) is a three-act opera composed in 1957 by Arnold Schoenberg, drawing from the Book of Exodus.

Strang: No, he talked about *Moses* from time to time, but during my relationships with hi, he never talked about it in those terms at all.

Weber: Because people always speak of it interpretively as representing the artist, the two hands of the artist, the idealist, Moses, and the pragmatist, Aaron, but this new recording by [Michael] Gielen just breaths the social panic of the early '30s¹³¹. I think it's one of the best documents of a society just screaming for leaders, being unable to find it. I think it expresses better than anything else I have found musically what that period was like in Berlin particularly.

Strang: Well, in terms of its expressing the ferment of that period I couldn't agree more. It certainly has that feeling to me too. I think that if this was the case it was probably not on the conscious level. I don't think it was intentional and deliberate. As far as I know, he didn't conceive it in those terms. I don't mean to say that Schoenberg was anti-expressionist; on the contrary it is sometimes considered to be an example of expressionistic tendencies, but that's a technical quibble. He was certainly devoted to the idea that music expresses the feelings and attitudes of the composer. And in that sense, I'm sure that *Moses and Aaron* developed under a situation where it had to be an expression of his

¹³¹ Recording of *Moses und Aaron* by [Günter Reich](#), Louis Devos, Chorus and Sinfonieorchester des Österreichischen Rundfunks, conducted by [Michael Gielen](#) (1973).

reaction to his interpretation of that period. I don't see how it could help but be involved, we were all so caught up into it and all so buffeted about by the tremendous pressures of that period that he couldn't help but being influenced by it. He was forced to change his whole life as a result of it. But certainly, there was so far as I can tell, no intellectual translation involved in the process.

Weber: As you put it, a kind of naive, almost unintended expression.

Strang: Yes, I'm sure this was the case. He thought of this in terms of the drama of the story, of the symbolism—yes, of the characters. He thought of it in terms of the biblical language and its implications, and I heard him speak about things of this sort. But never in terms of any kind of, shall we say, social or political analogy or any deliberate attempt to transmute the pressures of the time into an artistic vehicle. Now, that was certainly not his motivation.

Weber: Would he ever talk about any about the social values or political dimensions around his conflict with Stravinsky?

Strang: He was very reluctant to talk about Stravinsky or anything about Stravinsky. There were times inevitably when Stravinsky came up or his works came up. Well, one example we were constantly looking for musical examples from the literature to use in the fundamentals of composition [book]. And at one stage, one of the five versions of that

which we worked on, there was some attempt to deal with twentieth-century music, even though that doesn't really appear in the version that was published. And so we were looking around for examples of certain types of things among composers like Stravinsky and Ravel, Debussy and Strauss, and so on. And as we considered various works of Stravinsky we attempted to find example among them there was always a kind of a deprecating attitude on his part. Well, that really wasn't a very good example; there really wasn't very much there of this kind in his feelings, it was all pretty superficial from his standpoint. Now I think this was probably exactly what his attitude was because, of course, Stravinsky was much more concerned with the glitter on the surface, with the colour and the obvious attractiveness of material—and then the whole ballet type of background would lead to a kind of attitude [such as we are discussing]. And Schoenberg was always concerned more with the more abstract or the more aesthetic formulations of things he was concerned about—the form, the structure, the balance, the texture, he was concerned in these terms.

Weber: Did he translate this into social terms? I see such implications there. But do you think he resented Stravinsky for his more active commercial role?

Strang: I'm sure there was something of that in it. You have to keep in mind that Schoenberg was convinced of his importance, and I would say his preeminence, as a composer during that whole period from, say, 1910

on through the first half the century. And he certainly resented the fact that he was not getting the performances, the exposure, and the credit, the admiration which he felt he was entitled to. And so there was undoubtedly a certain envy and distrust of composers who he considered to have lesser stature and who did make a hit with the public—who were performed more, who received more admiration, who were written about more, people who got more recognition. Certainly, he both envied them and distrusted them. Now there was part of that in his attitude towards Stravinsky without any doubt but...

Weber: He didn't try to generate it into a larger intellectual thing.

Strang: Well, I doubt it, I don't think so; his tendency in a situation like that was to sort of push such things aside and simply concentrate on this...you remember that Schoenberg had one of these active wiry minds that was constantly grabbing ahold and tussling with something. And if it was something of this kind which he couldn't resolve or something which he distrusted, his tendency was to push it aside and work on something else. And so this is more or less what happened with respect to Stravinsky: he had a basic distrust or possible envy of Stravinsky, and so his tendency was not to talk about him but to get involved in something different and sort of push the whole problem aside a little bit.

Weber: In relationship to the two groups, I gather that Lawrence Morton was close to Stravinsky in the '40s. that early.

Strang: Not earlier, no, Lawrence didn't really get into that business until about the time when the Evenings on The Roof moved out of the studio on the roof and went down to the Ebell Club Theater, during two or three years, I guess, just before Peter [Yates] ceased to be active, bought out and turned it [the concerts] over to him [Lawrence]. So I would say Lawrence Morton didn't come into the picture until the latter half the '40s.

Weber: What was kind of employment did he have?

Strang: Well, he was at one time an arranger of motion pictures, and of course his brother remained a composer and an arranger.

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Weber: He was an arranger?

Strang: An arranger—Lawrence did some of that, too, at one time. He was never very prominent, I knew him at the time, when he was making his living as an arranger, among many others who were doing the same thing, He wasn't quite as fortunate in that respect as

David Raksin.¹³² Since he was an extremely articulate young man, he got associated with some of the motion picture music classes at USC, and so on.

Weber: As to the people around Schoenberg and Stravinsky— particularly Schoenberg— what were the occasions, the kinds of social occasions, where they met, how close, how continuing a social group was it? I imagine it must have been different in the mid-‘30s and later into the ‘40s.

Strang: Are we talking most about Schoenberg? Or Stravinsky?

Weber: Schoenberg.

Strang: Because there are differences there. During the ‘30s the Schoenbergs lived very quietly, and there were a few of their friends, first at USC and at UCLA who were around.

Interview 6 with Gerald Strang: Led by Mitchell Berman

¹³² David Raksin (1912 -2004) was an American composer noted for composing over 100 film scores and 300 television scores, thereby becoming known as the “grandfather” of film music.

Strang: Well, here are talking about the period around 1929, when I was still taking some graduate courses at the University of California [Berkeley] in Music, the first theoretical music which I ever had in an academic setting. And above all that I could tell was that: A, I wanted to compose; B, I was not the least bit interested in following in the footsteps of people like Edward MacDowell [1860-1908] and George Chadwick [1854-1931], the traditional American composers; and C, I thought that the work of French-trained Americans whose music I had heard—though not very many of them, people like Emerson Whithorne and Arthur Oldham, and so on—was to my mind pretty superficial.¹³³ It was a matter of all color and not much content, and even though that was fine, I was not much interested in it; and D, I knew darn well that I didn't want to go through conventional German conservatory training or something like that. I'm often very impatient like youngsters are, and at that age I didn't want to waste my time on all this academic nonsense. And you people in your generation have heard that kind of argument before.

Anyway, here I was, not knowing what I wanted to do, and having very little access to actual music. Indeed, the music of these people was practically unobtainable in the San Francisco area at that time.

Schoenberg's theories were known, but his music was not. Yet the idea of

¹³³ Emerson Whithorne (1884-1958), a composer and pianist, spent much of his career in Europe while writing for *Musical America* and the *Pall Mall Gazette*. Arthur Oldham (1926-2003) was the English composer and choirmaster who founded the Edinburgh Festival Chorus in 1965 and the chorus of the Orchestra of Paris in 1975.

a well-considered, carefully sorted-out or organized approach, different from conventional theory, that *did* appeal to me. It appeared to me to be something I could get my teeth into.

So without much more than a feeling that it was necessary to go to Europe because there was nobody in that area---and apparently nobody much on the East Coast—who knew anything about how to teach contemporary music. So I had to go to Europe, along with the feeling that since all the boys—that is, people like [Henry] Cowell and [Howard] Hanson, and the Thompsons and people like that who had all gone to Nadia Boulanger in Paris.¹³⁴ Being kind of a non-conformist, I figured since everybody else was doing it, that was one thing I didn't want to do, being just as negative and just as irrational as that. So I set out with the idea of going to Berlin and seeing if I could study with Schoenberg, seeing if I get into his classes at the Hochschule [der Musik], even though I had no knowledge of German. That didn't deter me, I just figured, let's go and see what you can do, which is again the story of my life. I didn't know anything about it, or whether anybody *else* knew anything about—that was the thing I was sure to tackle.

¹³⁴ Henry Cowell (1897-1965) was an influential [composer](#), [music theorist](#), [pianist](#), teacher, publisher, [impresario](#), and the husband of ethnomusicologist Sidney Robertson Cowell; see Joel Sachs, *A Man Made of Music* (Oxford: Oxford University Press, 2012). Howard Hanson was a composer, conductor, and teacher who promoted contemporary American music and was, in his own compositions, a principal representative of the Romantic tradition.

And so I did, I went to Europe, my parents were able that time to send me, but I got as far as England and received a word that my father's eyesight was failing and that he might have to withdraw from his business, and so on, and things looked pretty bad, and so it was up to me as the eldest son to come home and see what I can do about the situation. I never got further than London on this trip, I turned around and came back. At that point, the only thing I could do was to become in effect an autodidact as far as contemporary music was concerned. And there again, being a fairly organized sort of person, I decided that I would try to get ahold of what music I could. I would also put myself through a series of experiments and trials, that sort of thing, using whatever acquaintanceship with contemporary music or whatever I could read about the theories of contemporary music such as were available. That meant that I wrote an enormous number of very small, very short pieces which were designed to explore particular problems, particular aspects of contemporary music as I understood them. So hearing about the term polytonality, I sat down and wrote a number of little short things since I wanted at the same time to learn about orchestration for instrumental writing. I would write, say, for the clarinet and the flute, or a violin and a piccolo, or whatever instruments I had available.

Berman: Do these works date from before 1932?

Strang: Yes. They are things which I wrote in a period of about two or three years during which time everything fell apart, as you know. In 1929

my father's business blew up and I didn't have a job, and for three or four years we lived on practically nothing. We simply cut our losses and left a rather elaborate home in Berkeley and went out and got a little three-room shack in East Oakland, where we lived on carrots and hamburger for about four or five years. In fact, we were getting along on 15 or 20 dollars cash outlay a month a during good part at that time--it was possible in those days.

Anyway, I simply wrote and wrote and wrote and threw out most of the things I didn't like, and so on. And I explored every concept I could run up against: polyrhythms, polyharmonies, polytonality and of course, 12-tone composition insofar as one could understand it from what had been written about it. This whole discussion started with a remark that I made while on the previous tapes to the effect that there was a piece of mine played in Havana, I think in '31 or thereabouts, which was reviewed and the comment of the critic was that I was very much influenced by Schoenberg. Well, this time I had practically no direct knowledge of Schoenberg, I had never heard much about Schoenberg, and I'd only seen one or two short things, like some of the piano pieces.

So of course, since I had been influenced so much by Schoenberg, I really had to go into a serious study of Schoenberg's works as far as I could. And about that time I discovered more or less by accident, or I guess maybe I met him through Henry Cowell. So many things happened through Henry Cowell, who was a kind of catalyst for practically everything having to do with contemporary music in the United States about that time. There was an architect named Irving Morrow who

happens to have been the architect of the Golden Gate Bridge, he was the one who picked that wonderful color that they still paint the bridge. And Irving had as a hobby picking up printed material of all sorts wherever he went in the world. And among other things he picked up enormous amounts of published music, most of it contemporary music. A good deal of it still had uncut pages. He collected a lot, he was a typical collector, though he wasn't so much a specialist as he wanted to know what was in it. He played the piano and did try out some of those things.

Irving had a collection of contemporary music which was amazing, and later on I raided it for the *New Music Edition* workshops and for some series of lectures I gave in contemporary music.¹³⁵ But in any case, it turned out that the collection of contemporary music of this architect was the best source of information about contemporary music that I could find. He had far more of it, and far better selected, than anything you can find in the libraries at the University of California or in San Francisco or at Stanford. And so it was then possible to get and to study these works. And so to explain what I was doing in that period, I wrote every day for about three or four years, doing innumerable experiments in all sorts of things like this, developing from the inside out to understand these concepts, and finding my own approach to them.

Among the experimental pieces I wrote during that period was one related to my interest in contrapuntal procedures—a mirror canon going

¹³⁵ See the collection of *New Music Edition Compositions* at Syracuse

University Library:

https://library.syr.edu/digital/guides/n/new_music_ed.htm

in two directions. It was published under a title suggested by my first wife, *Mirrorrorrim* [1931]. It is extremely rigorous and in a manner analogous to a trial of the 12-tone method, though not actually based on any 12-tone series. That is to say, everything that happens in the left hand is mirrored in the right, and everything that goes forward during the first half goes back with doing last half, and it had to be adjusted to fit my particular concepts. And since I was also already beginning to tinker with the conventions of predetermined pitch sets, I was already impatient with the idea that we had to confine ourselves to the precise 12 tones of the conventional system.

And so there were what I called at the time “tonal centers,” since I was not yet convinced that absolute equality of tones without any kind of gravitation would work as in the theoretical 12-tone system. There were tonal centers used, but the tonal centers are unhearable in the sense that the line of the tonal centers around which the inversions in the retrogrades operate lie between the cracks of piano keys. That is to say that in certain places an E in the left hand would be balanced against the F in the right hand, and then everything would go outward from the B and the B Flat or whatever the tonal centers would be. In other words, the inversions and the retrogrades took place about a non-existent pitch that lay between the conventional ones.

Well, this was an example of the kind of experiments I was making, you see. Henry Cowell called one day and asked if I would mind if he published it, although I had not really written it with the idea of its being a published piece. I’d written it as an experiment as a part of my

carefully planned self-teaching program. I of course didn't object, and so this was my first published piece, which came out you know in *New Music*, I think in '33 or thereabouts. This was what was happening and how it happened, so that I set out with an intention of going to study with Schoenberg and never got there at that time.

Five years or six years later Hitler took over, Schoenberg left Germany and appeared in Southern California, and so I met him when he came to San Francisco to conduct a performance of the Chamber Symphony [1906] and *Pierrot Lunaire* [1912]. At his suggestion I applied for a scholarship and eventually wound up in Los Angeles studying with Schoenberg. So finally I made the connection which failed to take place in 1929.

Berman: Might we go back and talk about when and where you first met Henry Cowell?

Strang: Well, of course Cowell was very much involved with everything that all of us did during that period. And if my memory is correct, I first met Cowell in 1928, probably in the middle of 1928, and it was probably one of the early new music concerts in San Francisco. In any event I have only a vague memory that there were some contemporary music concerts which were given in somebody's studio in San Francisco—I can't remember whose—which I attended. They were hard up for people to collect tickets and do the dirty work for the production. I introduced myself and offered to help any way I could, because it seems to be these

things should be heard. And stemming from that, I did assist at some of the Bay area new music concerts in menial functions, moving chairs and pianos and taking tickets and whatever else I could do, and in the course of all this I got acquainted with Henry.¹³⁶ One of the things I remember about that period which was illuminating and significant to me certainly. It must have been in probably earl—either winter or spring of 1929—when I invited Henry to have dinner, since I was still living with my parents in Berkeley.

And Henry came to have dinner with us there, and afterwards we got to talking about sound and so on. Henry had already developed the idea of tone clusters and some of the other concepts, and he had already begun his experimentation and using the piano as a sounding machine, rather than as a means of a carrying out conventional functions. He was at the time very much concerned with an exploration of all the sound-producing possibilities of any type of sound producer he wanted to use, and this included an already budding interest in non-European music, particularly Near Eastern and African music and things of that kind. And, of course, that included folk music, particularly Irish folk music since he had an Irish background. And he had already done some investigation and collected some recordings in his area.

So what happened was that after dinner that night, which I can't pin down any closer than that, we got to work with our piano and just a

¹³⁶ The events cited here as the San Francisco “new music concerts” must have had some relationship to the development of Henry Cowell's *New Music Edition*. See Sachs, *A Man Made of Music*, 198-99.

sort of find out what we can do with musically speaking, or sound-wise non-musically, just the matters of sound producers. And so we got out our pencils and stuck them between the strings with nail files, and after a while we began experimenting with heavy aluminium pot lids and frying pans which we could bang down on the strings and produce great volumes of gong-like sound. We were in the beginnings of the idea of the prepared piano; we spent a whole evening there insulting that poor piano horribly, tapping on the wood and all the rest of those things. This was the beginning then of some interest in sound, or sound which produced among other things the two little piano pieces later published in *New Music [Edition]* called *Composition Eleven* and...

Berman: *Eleven* and *Fifteen*?

Strang: *Eleven* and *Fifteen*. And particularly the one with the big chords in it, which was designed to find a way of incorporating sounds of indefinite pitch, kind of an integral way with the simpler and more melodic type of things which were to be expected from a piano. Hence the chords which started out with moderately simple resonances gradually expand till it became tone clusters. The idea of incorporating the technique of the tone cluster where a large number of neighboring sounds are put together in such a way where you hear only the mass rather than hearing the individual components. And there develops a bridge between that and the situation where you hear a true chord, or you have a kind of fusion among those sounds but they retain to some

degree their individual significance. And of course, the use of the piano in this way naturally led to an experimentation with other instruments in the same way. So we all became very much interested in the sounds of wood and stringed instruments, and also tapping instruments which were not intended to be tapped. There evolved a whole gamut of sounds that later produced, for instance, much of the music of John Cage such as was under experiment during this period. And that's how I happened to meet him, and of course I got more and more involved in the *New Music* [Edition] society. For a couple of years, about I think 1933-35, I managed and organized two *New Music* workshops, one in Berkeley and one in San Francisco, the idea being that since conventional musicians had no idea how to bang a piano with a frying pan or otherwise insult this sacred instrument, that we had to get musicians on a level who would tackle these things, would look upon their instruments as having other than the habitual customary resources.

Berman: What kind of musicians did you bring in, professionals or others?

Strang: Well, the idea of this was to bring together the potential listener with the potential performer from whatever source possible, with the result being a nucleus of people who were at best amateur performers. But there were also a few far-seeing academics; there was one gal who taught at Mills College, what was her name... that doesn't matter anyway, but there were a few academics involved. There were a few

professionals of varying sorts, there were a few symphonic players, there were a few free-lance performers, one marvelous clarinetist I remember, but we could always get ahold of a few string players, a few woodwind players—and a lot college students. So the type of people who attended those things was constantly fluctuating. We improvised, we got ahold of whatever music we could find the group we thought that might be present.

The result was that we kept the piano version of Stravinsky's *Symphony of Psalms* at hand, and whenever nothing else would work to get people involved, we would sit around the piano—since we had a marvelous young pianist who could sight read anything, like the Prokofiev Sonata.¹³⁷ The rest of us would sing at it, and it all went from the sublime to the ridiculous. We would get musicians together to try these things, and of course I got a lot of my stuff tried that way. This was the sort of thing it was, it was simply designed to expose people to any kind of contemporary music, and if we didn't happen to have any printed music available from Irving's collection or other sources, we would write music. So in this sense, it was a little bit like the groups the [Paul] Hindemith was having in Berlin at the time, in the *Gebrauchsmusik* movement, except that our goal was not so much situation music as it was to find something to fit the performance capability of those we had available. So the idea of a piece for piccolo and tuba you see, was right down our alley if that happened to be what was inevitable. These continued for a period of well, I guess, two and a half years, something

¹³⁷ For discussion of his nine piano sonatas, see <https://www.jstor.org/stable/j.ctt1npc15>.

like that, and had quite a lot to do with breaking down the barriers between the new music and traditional musicians.

And by the time we got through you could find musicians who would tackle almost anything. That doesn't necessarily mean that we gave in our music society superb performances of contemporary music. One of the biggest obstacles of contemporary music's acceptance in the '20s or early '30s was simply the fact that a lot of the presentations were not very well performed. And part of the reason was because nobody knew how they should sound. And there were lot of new techniques and skills needed which nobody had developed. And so our function there was to try to bridge this gap so that we would know what to do with things, what to expect where our performers would learn how to handle the problems. Anyway, this was a I think a very fruitful activity, and by the time I left to Southern California, the inability to find performers have been fairly well liquidated, we were at the point where we now had sufficient interest and sufficient ability to develop new skills and sufficient devotion to putting in whatever time was necessary, so that we could get reasonably good performance almost in that.

Anyway, we started out talking about Cowell. As soon as I suggested things Henry would say it was fine, great, go ahead. One of the remarkable things about Henry Cowell was while he was an individual of considerable character and independence, he was also able to mobilize people, to encourage people to do things on their own. He was not one of these persons who like [Edgar] Varèse and some of the people who were involved at the League of Composers or the Pan-American Alliance in

New York, who insisted on being personal dictators of the groups that they formed.¹³⁸ On the other hand, Henry was delighted to accept any sort of an idea that looked as if it might bear fruit, and to assist and make sure that something would happen from it.

The result was that the things we did on the Pacific Coast were a lot more freewheeling than the attempts that were being made simultaneously on the East Coast to encourage contemporaries. Henry just thought this was great and whenever he was in town, he'd come and participate, either play or help us get material or anything of that sort and so it meant that during this period, whenever Henry was in the West Coast, he'd be likely to come out to dinner or he would come and play bridge with us or whatever. And so I got to know him quite well, and whenever he came to town we'd meet and play. We organized a big concert when we would all be together, like for instance the famous concert where we did percussion music. You see, in those days there were no such things as percussion ensembles. So we did the *Ionization* number of Varèse as we did a number of other things, including some of those published in *New Music [Edition]* later on. That was great fun, that concert; I played the siren in Varèse's *Ionization*, and I played the broken bottle in a piece of Bill Donovan's.¹³⁹

¹³⁸ See the detailed discussion of the League of Composers in Sachs, *A Man Made of Music*.

¹³⁹ "Bill Donovan" was probably Richard Frank Donovan, cited as a New York area composer seen by Henry Cowell as among sceptics of musical modernism; see Sachs, *A Man Made of Music*, 205.

Berman: This is about when, in 1930?

Strang: It must have been in the middle, or maybe the early 30s, I might even somewhere have a program put away at some place. Most of my material for *New Music [Edition]* has already been turned over to the New York Public Library where the key to *New Music [Edition]* files and most of my Ives stuff has gone to Yale, where they have the Ives archives and so on. But I might even be able dig up a program, but probably in '33.

Berman: How about any contemporaries that you knew who were involved with you, even though the impression I get is that you were doing a lot of this work by yourself?

Strang: Well, there were lot of people around, but composers have always tended to be pretty much individualistic. There were a few people, among whom the only one who was involved in that period who later made any sort of a name for himself was Ray Green.¹⁴⁰ You may not know of him, but he later went east and was involved with the American Composers Alliance together with the library there which was formed for

¹⁴⁰ Raymond Green (1908-1997) became known for composing dance music, studying in France and founding the American Musical Edition in 1951. Mead cites him; see *Henry Cowell's New Music Society*, 228, 229, 280.

contemporary American works.¹⁴¹ He did some additional composing, and he had some recordings as well. Charles Cushing of the University of California [Berkeley] who later won the Prix de Paris, went to study with Nadia Boulanger, came back and recently retired as Professor of Music at Berkeley. There were some young people whose names you might not recognize at all, who may have appeared briefly in *New Music*, like Bill Bayless and Conlon Nancarrow, and there were some people who were around intermittently.¹⁴²

So it was like most of those things, that is, somebody had to do the dirty work, and I opted to be the one who was doing the dirty work, but yes, any young composer who had any students and so on we welcomed, and the things which were most successful in the workshops then tended to appear on the new music concerts later on. So it was a kind of a feeder.

Berman: Did newspapers ever sent critics to review the new music concerts that you gave?

¹⁴¹ The American Composers Alliance was formed in 1937 by such composers as Aaron Copland, Elliott Carter, Marc Blitzstein, Colin McPhee, and Douglas Moore; see <https://www.newmusicusa.org/profile/acacomposers/>

¹⁴² Samuel Conlon Nancarrow (1912-1997) was an American-born composer who lived and worked in Mexico for most of his life. He became a Mexican citizen in 1956.

Strang: Well, in those days the one norm was that the critics really had no idea what it was all about and no sympathy whatever for contemporary music. There were rare exceptions obviously. But generally speaking, the criticisms tended to be laudatory in the sense that we ought to hear this stuff, but invariably the critics' opinion was that a lousy bunch of noise made by an incompetent musician was making it, or something or other. So the reviews were consistently terrible although we did get some good ones. The formal concerts fairly consistently got reviews, particularly in the *San Francisco Chronicle*, about the time when [Alfred] Frankenstein came. He was an interesting case who for about thirty years was a highly respected music critic for the *Chronicle*. He came to San Francisco probably in '33 or '34, and he himself was a clarinetist and his wife was a violinist. When he was a young budding critic for the *Chronicle* he began to come to *New Music* workshops, and both he and his wife used to play for us and with us. Alfred was always a critic but at least he was the one who began the breakdown of this blockage which made it seem impossible for the critics really do to hear what we were doing.

But in fact, my own reaction to this sort of thing was not untypical. It got to the point during that period when if by some chance, a review said anything favorable about a piece of mine, I would go back and take another good look at the darn thing, because I was pretty sure that there must be something wrong with it. But if a critic liked it then it must be either too easy or too superficial or too popular to be of any value, you see. And so we began to develop a kind of negative association with

critics such that we just took it for granted they were going to pan us. We became very suspicious if for some reason the critic didn't pan us. I remember one occasion when I had a very simple little piece, a two-part counterpoint for oboe and flute, I think it was, performed in Berkeley. And there was a guy there who because he had once met Debussy and had lived for a while in Paris who was considered to be sort of an authority on contemporary music. He was one of these voluble guys, and it happened during the intermission that I was standing up far away from him while he was declaiming loudly about what had been done in first half of the program. And somebody asked him what he thought about my simple little piece—which was dissonant, I must admit, just for clarinet and oboe. "It is simply obscene," he said, simply obscene. This struck me as terribly funny, you know, the idea that a voice piece like that which today would be terribly innocuous could be described by the word *obscene*. How do you make a two-part piece of counterpoint obscene? But this was the sort of thing that we were accustomed to, toward which we developed our special armour.

Berman: Indeed! Well, what kind of music then did most of the musicians favour who were traditional, let's say—more toward Debussy or more toward romantic trends?

Strang: You have to recognize that at that time the repertoire which appeared in the recitals, the symphony concerts, especially at local concerts, was a strictly traditional repertoire on the whole. You could

count on hearing a lot of Beethoven but not too much Brahms, since Brahms was considered awfully difficult by the audience. You would hear Mendelssohn and Schumann, the romantic repertoire, and occasionally an adventurous programmer would put in something pre-Bach. So once in a long time I'd hear Vivaldi, and once in a long time I would hear Debussy, sometimes the early Ravel. But that was about the extent of it, you see, the programming was basically the three "B's", and, well, actually even Bach was not too frequently represented. So it was essentially a romantic repertoire that everybody performed, quite the same repertoire.

Moreover, the trend which finally began to develop in the late '30s and the '40s was that some of the less obvious pieces from the conventional composers developed so that what you heard was, oh, god, awful quantities of [Franz] Liszt that came out of your ears, so much so that I developed a real prejudice—even to this day I have trouble listening to Liszt without a feeling of rejection. We were simply inundated with the more superficial but more showy parts of the romantic literature. Contemporary music was represented by Richard Strauss, though not the more far-reaching things he wrote.

Berman: That music could be just as difficult to people as Brahms.

Strang: Sure, and of course pieces by [Gustav Mahler or [Anton] Bruckner, heavens only very rarely—we don't hear anything of that sort. [Jean] Sibelius's tone poem *Finlandia* [1899] was all over the place, but

his more serious works were the latest symphonies, which were never heard. So for the general repertoire contemporary music really went up only as far as an occasional piece by [Richard] Strauss or Sibelius—that was it. So this is the kind of repertoire that people were used to hear played, it didn't matter whether this was on the “star” type of concerts by traveling artists or whether it was by local groups. Another thing was that you heard a great deal of piano music. For that matter, some vocal music from about the same periods was stereotypical at symphony concerts.

But one never had a chance to hear any chamber music except by a small group of well-established string quartets. The Pro Arte String Quartet from Belgium, one of the fabulous quartets in that period, was exceptional in its repertoire, compared to the other well-known quartets in the period that played nothing but the romantic repertoire, seldom going further forward than the middle Beethoven quartets. Again, even a Brahms string quartet was considered too difficult.

So this was the repertoire we had to hear. Now I should make an exception with the Pro Arte Quartet that perhaps requires a little ramification. Elizabeth Sprague Coolidge, who later established the foundation in Library of Congress and built the chamber music hall, used to spend her summers at Mills College in Oakland, and she nearly always had a captive string quartet in her retinue.¹⁴³ At that particular time it was generally the Pro Arte group, whom I got to know very well because we lived not far from there and I did some freelance criticism for the

¹⁴³ See the Coolidge Collection at <https://www.loc.gov/item/2012562124/>

Oakland Tribune so I could go to hear the concerts, since I had no money to buy a ticket. And they were of course the ones who introduced most of the quartets by [Darius] Milhaud, the early ones particularly while they were still active.¹⁴⁴ And they played the Third [String] Quartet of Schoenberg [1927]; I think the second performance of that was done along with things of that sort. So the Pro Arte String Quartet was very influential, tending to break down some of this limitation [in repertoire]. But again, you see, the limit on variety in chamber music did allow an occasional piano quintet, and that's about as far that we got away from the conventional mode.

Berman: I would like to ask, regarding your discussion of new music, why you call your music "ultra-modern" as opposed to just "modern." Are you rebelling, as did Debussy?

Strang: They're always of course terms like this, you have to consider them in the context of the time, since "modern" was used at that time to describe terribly far-out composers like Debussy and [Maurice] Ravel. This was how they used the term, and that's what people mistook about it. For anything which broke away from that level of newness or individuality, we had another term, "ultramodern," that meant what went

¹⁴⁴ Darius Milhaud was a French composer, conductor, and teacher, known as a member of Les Six, becoming one of the most prolific composers of the twentieth century. His compositions are influenced by jazz and Brazilian music and make extensive use of polytonality.

beyond the modern composers of period. Any experimentation like that of the French “Les Six,” or the axis around Schoenberg, Bartók, or Stravinsky, was simply one step beyond what was then considered “modern.” Of course, this kind of a distinction has disappeared now because we no longer find that there were such sharp distinctions as we felt existed during that period. It’s like most such terms, pretty meaningless.

Berman: It kind of struck me that “ultra-modern” seems like such a...

Strang: Well yes, that is true, or at least an exaggeration, besides being fairly meaningless. And, of course, a bunch of people were considered ultra-moderns—Bartók, Stravinsky, and Schoenberg—not considering some insignificant American composers. Of course, some of those composers renounced the whole idea, none of them liked the term, they didn’t consider themselves ultramodern. There wasn’t one of them who didn’t consider himself a traditionalist, they just felt that they were simply carrying on the evolutionary flow of music at that time. The idea of history as an upward rising progression was simply accepted, because the evolutionary principle in the sort of a simplified and barbarized form had become the universal framework, and so everybody simply assumed that there was a kind of a stream going on upward and upward. So Schoenberg, Bartók, and Stravinsky simply considered themselves a continuation of a previous trend. And to a very great extent they were right. At the time it seemed as if there was an almost complete break

with the traditions of the Romantic period. As we look back on it now, it was a great deal of both Stravinsky and Schoenberg, for instance, that can be heard is simply a kind of late Romanticism, and we don't really find that there's any great break, even though there were some changes in method and materials.

But as so often is the case, you find that when a composer has once established his viewpoint, the medium he uses has very little influence on the character of his music. I've established that for myself not only by observation. When I first went into electronic music I found that the music I produced sounded remarkably similar to the music that I had previously produced for conventional music. And I think that is generally true. After all, [Ernst] Krenek is always Krenek, no matter what the idiom.¹⁴⁵

Berman: Yes indeed.

Strang: Alright, now you're interested at this point in the period roughly from 1935 on. I came to Southern California in June of 1935 as a scholarship student with Schoenberg at the University of Southern California. As we were still as poor as church mice, it didn't look as if we were going to be able to remain so I simply told Schoenberg that I'd like to remain with him indefinitely but I couldn't afford the tuition. So I went

¹⁴⁵ Ernst Krenek (1900-1991) was an Austrian-American composer who became one of the most prominent exponents of serial technique after [moving to the U.S. in 1938 and taught at Vassar College.](#)

out to talk with Sam Goldwyn, who got another scholarship for me, and so we [my wife and I] stayed there and I worked with Schoenberg indefinitely.¹⁴⁶ Thanks to one thing and another, my work at the University of Southern California then became possible and we settled down to that sort of thing, and it wasn't long before my position as a student with Schoenberg sensibly converted itself into a position as teaching assistant, and I no longer bothered with registering for classes. I simply sat by him at the desk in every class that he taught for a period of nearly three years and supplied him with the English terminology which he lacked, just as Leonard Stein also attended all these classes. Leonard's position was mainly that of playing excerpts and illustrations on the piano and reading student compositions at the piano, and so on. Even at that time Leonard was a remarkable sight-reader, particularly for things with contemporary style.¹⁴⁷ Anyway, the two of us sort of became his slaves and amanuenses to such an extent that we were in and out of the house. We performed all kinds of services in addition to the direct ones that were involved with music. For instance, I spent a lot of time

¹⁴⁶ Samuel Goldwyn (1879–1974), also known as Samuel Goldfish, was a Polish-American film producer best known in Hollywood for being the founding contributor and executive of several motion picture studios.

¹⁴⁷ Leonard David Stein (1916 – 2004) was [musicologist](#), [pianist](#), [conductor](#), [university teacher](#), influential in promoting contemporary music on the American West Coast. He served as the original director of the Arnold [Schoenberg Institute](#) based at the [University of Southern California](#).

driving him around town and going to rehearsals with him, and otherwise generally helping out anywhere I could—which was right at the tradition of the apprenticeship system from Europe.

Now you're concerned with the musical side of things. I think I've fairly well covered the Schoenberg situation on some of the other tapes that I have made. Let me see, it must have been in the fall of 1935 that Henry Cowell got into trouble for some reason or other—he was picked up on a charge of contributing to delinquency of minors, which would not ordinarily have been much of anything. This was down at the Peninsula, where he had a little place in one of the Peninsula suburbs, Burlingame or San Mateo, which he had inherited from his mother. Anyway, he was picked up on a morals charge, and normally this would have gone the usual route of that period when they didn't talk about such things, and so they weren't really ordinarily considered suitable for coverage in the news. But apparently one of the families involved had connections with the *San Francisco Examiner*, which was a Hearst paper and was inclined to sensationalism. So the Hearst papers took it up and they made a big thing of it, and the upshot of it was that instead of the usual misdemeanor prosecution he was prosecuted on a felony charge and convicted and sent to Sam Quentin [State Prison] on an indeterminate sentence, which, I don't know exactly, was one to ten years or one to thirteen years or something like that.¹⁴⁸

And of course, this happened out of thin air; well, when my wife and I heard about it, we were absolutely flabbergasted. We hadn't given

¹⁴⁸ See <http://gayinfluence.blogspot.com/2011/10/henry-cowell.html>

any thought to his personal habits or interests, and it never really occurred to us that such a thing would be involved. It was a surprise and a shock, but of course our first reaction was, well, is there anything we can do to help Henry, and our second was, what's going to happen to the *New Music Edition* and new music activities. So the first thing we did was to simply take off, go up there, and visit him. And so we went to his place and talked to his father and his mother-in-law, and so on. And it became evident very quickly that this was a very serious matter. So, as I had previously done some of the other new music activities, I simply told him, you know so well that if there's anything I can do to help keep things going I'm available. If you want me to simply take over I could make sure that the *New Music Edition* continued as before.

And when it became apparent that he was going to prison, that's exactly what Henry decided to do. It turned out then that I learned some things about the *New Music Edition* which I had been simply unaware of before. For one thing, it was not—as it appeared to be—a sort of non-profit group activity. It was technically speaking Henry's personal property and moreover it was viable as an enterprise mainly because of contributions that Charles Ives made regularly to the cost of publication. And so Henry simply gave me a bill of sale, and I became the sole owner of *New Music Edition* and all its assets. At the same time, Henry had developed a collection of non-European music records which he picked up from all sorts of strange sources, mostly in Europe. He turned those over to me, and generally everything that had to do with any of these interests were simply left in my hands.

From that period on I was in-charge, and technically I owned the thing, I mean I could have been a little dictator if I'd wanted to be. However, I tried to rationalize and make more functional some of the rather informal procedures which Henry himself had established. For instance, he and the smaller group of composers who later were officially incorporated into the advisory board for *New Music [Edition]*—Becker and Reger and Otto Leuning, and some other of those people.¹⁴⁹ I pulled them together into a formal advisory group and, not considering myself particularly qualified as an editor or a critic, I formed the editorial group who then became responsible for choosing the music for the periodical. Our procedure was simply that I would do a preliminary screening on manuscripts, and the most promising ones I simply circulated from one to another of the editorial board to get their opinions.

Then with that as a basis, I simply went ahead to admit the final selections as to which were publishable. It couldn't simply be a matter of voting or something of that kind for many reasons. We were not aware of how much money we might have available or how things were scheduled

¹⁴⁹ John J. Becker (1897-1991) was the only Midwestern member of a group of ultra-modernist American composers known as the "American Five (See references in Sachs on Henry Cowell). Max Reger was a concert pianist who serving as professor at the [Royal Conservatory in Leipzig](#) and as music director at the court of Duke [Georg II of Saxe-Meiningen](#). Otto Leuning (1900-1996) was born of German parents and became a flutist, a conductor, and a composer noted for his innovative experiments in composition employing the tape recorder.

or how the subscriptions were going, and all of the practical considerations that enter the choice as to what pieces you will publish. There were certainly plenty of things that we would have liked to have published that we couldn't because we didn't have the resources for it. So in effect then, the terminology we used I think was accurate, that we had an editorial advisory board. They saw everything; they expressed their own opinions; and I made the choices as to what we actually published.

The same thing was true with regard to the practical problems with the Golden West Music Press, which had been moved to this area and was located on North Highland in Hollywood. The Langer boys were extremely helpful, the three of them who owned this outfit, agreed to take over a great deal of the sheer routine of the thing, that is, they gave storage space for the stock, they were willing to do the actual mailing of the material, and indeed they acted as a kind of a headquarters for the whole thing. And so I was in and out of the Golden West Press a good deal, and particularly Herman Langer was extremely helpful. I had no facilities of course, and *New Music* [Edition] had no money to rent a headquarters or to hire anyone up. And so the entire publishing activity has always been a labour of love; nobody ever received a salary to my knowledge for anything, not even for clerical work. I used to use a student stenographer for dictation, for instance. And any people we could get ahold of were stuffing envelopes when it came time for mailing, and as I said, the Golden West Music Press donated endless amounts of time and service and never made a charge for it.

So it was strictly a voluntary process. I think it's fair to say not only that I never received any money for what I did, I rarely received anything even for expenses. Most of the expenses I simply absorbed as my personal expenses, as everybody else thought I would do with it.

Berman: What happened to the money that was brought in, was it all absorbed in the expenses?

Strang: Oh, heaven's no. The money was of course, banked; it was under my control. And I kept careful records with those things; there existed a set of books for all the expenditures and receipts. However, our whole point of view was that any resources that came in should be used to enlarge the publishing activity. Even though there never was a contract either expressed or implied at first, it was just a personal matter, and later it became more formal. To that effect, if any particular work should turn out to sell exceptionally well, and we were actually made money on it, all the profits would go to the composer. I mean, there was no attempt on the part of the organization to do any more than deduct overhead and that sort of thing of the cost. But as a matter of practice, I don't think anything, even the Schoenberg piano piece, ever actually made money in a technical sense, since all the resources that came in we simply filed back into the publishing activity.

Berman: But in all those years we really don't have one word by Schoenberg published in *New Music* [*Edition*]*—*why was that the case?

Strang: Well, because he had a contract with the Universal Publishers, as you know, and it just happened that we had a big fight with one of the many working with Universal, and he considered himself free to permit some works to be published by other groups. Schoenberg allowed some piano pieces to be published by [Howard] Hanson, and Henry Cowell talked in a meeting to give us that one piano piece.

Now, Schoenberg was very much interested in eventually getting some return from his compositions. There was nothing much charitable about his approach to this sort of thing. He did so deliberately at that particular moment when he was in between publishers. He gave only the one piece to us, and of course we made no secret about it that we didn't really have any promotional facilities. We could not publicize, we had no way of pushing these things in a manner that a commercial publisher would do, particularly some of the very aggressive European publishers. Universal did a tremendous amount of promoting, so did Schott Music, as did most of the large or important publishers in Europe. This was a sort of thing we simply had no facilities whatever for doing, and so this was simply by mutual agreement. We were not able to publish more by Schoenberg, and we considered that he'd done us a great favor by implementing us to publish once. We would have loved to publish other of Schoenberg's things but we didn't even have the nerve to suggest it.

Berman: Does *New Music* [*Edition*] still have the rights to that work?

Strang: Sometime in the late '50s or early '60s whole *New Music Edition* was turned over to Theodore Presser.¹⁵⁰ And I'm not sure what's happened to the rights of the Schoenberg piece since Belmont Publishers, which is essentially [the property of] Larry Schoenberg these days, retained the American rights to practically everything Schoenberg did after came to United States. He sort of picked up American rights to other Schoenberg pieces as they became available.¹⁵¹

Now I'm not at all certain at this point where the press is still entitled to it, or whether it's reverted to Belmont [Music] Publishers; it would be one of the other, I would think. But that's the way the things went, you see, it was all clearly voluntary and there were some restraints, and things would happen, and there were times when I got behind in my correspondence. Once in a while I got some fairly nasty letters from some of the composers, you know, because I didn't answer, because I didn't send them copies of their stuff or because the thing hadn't sold as well as they thought. It was all part of the game. And I continued to run the thing more or less single-handedly up until, well, up until the time that Henry was paroled, which was I guess '40 or '41. I actually continued to run it for a while after Henry came out, until the fall

¹⁵⁰ Theodore Presser is one of the country's oldest classical music publishers, located in Malvern, PA.

¹⁵¹ See the Lawrence J. Schoenberg Collection at: <https://www.library.upenn.edu/collections/special-notable/groups/lawrence-j-schoenberg-collection>.

of 1941, or what was it '42, whenever it was that I finally had to go to work at Douglas [Aircraft].

Berman: I noticed also that when Cowell came back that the headquarters moved to New York, was that for any particular reason?

Strang: Yes, there were very good reasons for that. One of the conditions of Henry's parole was that he get out of the State of California and not come back. And so of course, he went to New York since there was never any question about the ownership of that. One of the first things that happened when he came out was that as soon as he found himself in the position to continue [the edition] I reissued a bill of sale and returned everything to him. And so since he was then accepting responsibility for it all, the headquarters changed to New York. Meanwhile, of course, we had the recording activities, and I don't know that you know about the recordings. Of course, that never was under my wing; when we took over the activities in 1935 the people in Bennington—Henry Leland Clark and Otto Lühning, particularly Otto—agreed to handle the recording activities through Bennington College. And so that never did leave New York, and eventually it went back to New York City when Otto moved to Columbia and then Henry assumed—indeed, reassumed, leadership of that.

And from about 1942 on, I was forced to simply drop out of the picture. It is that time because of the war I had to go and get the job at Douglas Aircraft. And I had a nine-hour work schedule in the engineering department there, plus the fact that my wife was already suffering from

rheumatoid arthritis and she was becoming less and less able to take care of herself, plus the fact that we had a child in 1943, and by that time her arthritis was too bad that she couldn't even bathe the baby. So my regime during that period was to get up at five [AM], wash the diapers, get the dishes out of the way and get the breakfast for the family, and generally get things set and then go to work at Douglas at seven, say, and then come home in the afternoon, cook the dinner, give the baby his bath. And so my days during that period were at least an 18-hour schedule and there was no time left for anything to do for *New Music* during that period. I think that's a fairly good outline of the way *New Music* was working in those days.

Berman: Okay.

Strang: I did not publish anything of mine in *New Music* during the time that I was responsible for it, even though there may have been a slight overlap with one piece which had already been scheduled for publication by Henry before I took over. But the main reason why that piece was postponed was simply that I would not pass judgment on whether one of my own pieces was appropriate for publication. I wasn't about to promote my stuff in *New Music* or to use that as a way to get it published. So I waited until somebody else was responsible for submitting it.

Berman: Right.

Strang: And, of course, that wasn't actually the piece that was written back in '35. But the symphony of which I had done one movement wasn't finished until '46 or so, when I was working on my doctorate at USC, and it became--as so often happens--something that would eventually work out. You will write something either as an independent piece or with one sort of a concept in mind, and then somehow, something holds you up. Several of my works have been written backwards in the sense that I would start out on a piece which I had in mind as the first movement of a longer work. Then I would try to find ways of writing the continuing movements and I'd get stuck somewhere, and so I would realize that I had a last movement. And so instead of trying to write additional movements to go after that, I'd go back and write movements to go ahead. So this was one of these cases where a piece was written that didn't fall into place until several years later.

And then I finally thought of a way of building other things around it, which would seem to me to make sense. I was never one to push my compositions because of a preconceived idea. Among other things that Schoenberg was partly responsible for in my thinking was the concept that a composition is a process of putting things together. That requires planning and organization, and it's not something that just happens. And so it's always been my way of thinking to start out with a concept. But for Schoenberg this was in a sense an obligatory scheme, he used to say that before a composer writes a note, he should have the composition

complete in his mind and then it becomes in a sense a matter of writing it down, amplifying it, and elaborating what emerges.

So for Schoenberg a plan like that would be fairly full-blown and would be considered fairly obligatory in many cases, although there are many cases where that was not true, as with *Moses and Aaron* [1957]. He would start off with a concept and then get stuck somewhere and he would only later find a way out. With me, my engineering experience and my scientific and philosophical background were separate from my undergraduate major, which was philosophy, not music. Partly I think this led to my looking at such plans as working hypotheses. A working hypothesis in the scientific sense is something else than a predetermined organization which you then proceed to implement. And so I never approached a composition with the idea that it had to be simply worked out along a predetermined line. I have always thought of a plan as a concept, an idea, a general view of a piece as a whole. I've always kept my mind open to see whether that worked, and I modify the working hypothesis if circumstances dictate that. It did in many cases, since the piece turned out to be quite other than what I might have originally expected it to be.

Berman: To go back to that second movement, did you hear that performed by the LA Philharmonic?

Strang: Yes.

Berman: What were the circumstances for that? First of all, how did you get it done?

Strang: Well with my usual utter inability to promote, I did nothing about it whatever. However, Schoenberg and [Otto] Klemperer were great friends¹⁵². Now one of the beefs that Schoenberg always had with respect to Klemperer was that Klemperer never played any of his principal works, though occasionally he would do something which was by way of an arrangement or something. Klemperer did do the Cello Concerto [“after G. M. Monn,” 1952] and the String Quartet that that was after an earlier Austrian composer.¹⁵³ Klemperer did some things of Schoenberg but in Schoenberg’s estimation he never really did any of his major works.

However, they were close friends, and they did visit personally back and forth on a social basis. But I would quite frequently run into Klemperer at Schoenberg’s house, showing that he knew him and talked with him. And he was, curiously enough, at least in theory, more interested in finding some works by contemporary Americans to perform than most conductors of the time. This is a rather strange thing because Klemperer was a very dictatorial, opinionated sort of a guy, you know, he

¹⁵² Otto Nossan Klemperer (1885-1973) was a German-born orchestral conductor and composer, often described as the last of the few really great conductors of his generation.

¹⁵³ Probably the String Quartet No. 2 (1908) that was inspired by the poet Stefan George.

was the boss, and he decided in no uncertain terms. But he apparently consulted Schoenberg to see if he knew of anything by an American composer, preferably a short work, a fairly simple work, because as always he had no rehearsal time, as is always the case with major conductors. And Schoenberg simply suggested that he look over his piece and told him I had a piece that he should look at. And Klemperer asked me to come to the house, and so I went to his house and took it along, he sat down to the piano and read the score on the piano, and we talked about it a little bit, and first thing, it was programmed. So it happened just like that, there are so many things happened in all of our lives, it happened more or less by accident and coincidence. I was there at the right time, you see.

Berman: How was the performance?

Strang: It was a very good performance, I thought. Klemperer was nothing if not conscientious. He had a couple of sessions with me at the piano, he read it and played it, and then he prepared very thoroughly--he knew very well what he was doing. During rehearsal, he asked me to conduct it so that he could get down in the stalls and hear from the audience. And of course, this was a shock, here was I, a young graduate student, all of a sudden faced with the request to conduct the Los Angeles Philharmonic. What? I was not a conductor, never pretended to be a conductor. But I've always been one of these guys who rushes in where angels fear to tread, and he asked me to conduct it, so I did, and I

got up there with my knees cracking against one another and went through the motions. Well, I guess I was obviously enough of a scared student so that the people in the orchestra were helpful and they did their best and everything went well, but it was through no fault of mine, I'm sure.

Berman: Was the piece reviewed?

Strang: You know, I really can't remember, I would have to go back and look through my records from that time. I'm pretty sure that if there were reviews, I may have kept it, I probably did. But I can't for the life of me really remember whether it was reviewed or not. Well, that's strange, isn't it?

Berman: Yes. What else was the program, do you happen to remember?

Strang: I only remember that the rest of the program was very conventional. I don't want to take time out of our talking, but that's a thought I have, I have some records from back at that time. For instance, I have those three articles on 12-tone music that I wrote for the *San Francisco Chronicle*, at the time of the Kolisch concerts, it must have been in '37 or '38.¹⁵⁴ I've got some programs and things, maybe it would be fun to go back and see. If in case you want to talk again some time I'll

¹⁵⁴ See Chapter 5 for discussion of the Kolisch concerts.

try to find an excuse to go back and hunt some of that material up. I'm kind of curious myself now as you mention it.

Berman: Do you remember any other memorable performances during this time?

Strang: There were not very many performances of my things during that period, since as I said, I was too busy promoting other people. A couple of my piano pieces were played, for instance, at the Evenings on the Roof, which started at about the same time.¹⁵⁵ And it seems to me that some chamber music may have been performed, but not very much of my stuff was being performed at that time. After the war, yes, there were quite a lot of performances, particularly of the chamber works, mainly, for instance, after 1950 when I began to write the bigger things like the Concerto Grosso [1951] and the Cello Concerto [1951] and some of other such things.

Berman: Okay.

Strang: '48 to '50.

¹⁵⁵ See Barbara Joan Seitz, "The History and Significance of the Concert Series Evenings on the Roof," 1938-1954," MA thesis, Indiana University, 1971.

Interview 7: Led by Mitchell Berman¹⁵⁶

Strang: Should I go on from where we left off last time?

Berman: Yes.

Strang: As far as the Monday Evening Concerts situation is concerned, I had known Peter and Francis Yates since the late '30s, and I had even for instance secured a bunch of [Charles] Ives's manuscripts or photostats,

¹⁵⁶ Mitchell Berman completed his MA thesis at California State

University in 1977, "Gerald Strang: Composer, Educator, Acoustician."

wanting to consider them for performance and things of that sort. And so from time to time Peter would want to know what I was working on. I usually found myself going to the Monday Evening Concerts simply from periodic requests from Peter, and if I had anything available, naturally I made it available to them.

You asked me, how did I get my things performed? Actually, I'm sure I must be the world's worst promoter. I don't know whether I ever really went out for a performance as such. Substantially, whatever performances I've had come by way of somebody asking me if they could use a piece, or if I had something that could be used in the program. I always complied with requests whenever I was able to, and it was as simple as that; I don't know that I ever went to the administrators of the Monday Evening Concerts and asked them to put a piece on the program, it was always the other way around. And that's really true of all my performances. One of my great weaknesses is that I can't seem to promote the performance of my own works. And so that's about it. I mean, you can just sort of take it for granted that somebody might ask for something. And it's about the same with publications, too. Most of them were at the request of somebody in a publisher's office who was looking for something and I gave him whatever I had available.

Berman: Who helps you sell them now, or have they ever sold the published ones?

Strang: Oh, they've always sold, but lightly. I'm still getting royalty reports on some of the musical things that were put out under [publisher Theodore] Presser, but only small ones. I've never had anything that really sold in quantity. It's the same whole story—the publishers haven't promoted them any more zealously than I have.

Berman: Well, you talked a little bit before about your compositional style, but you never really got into it. The only thing I think you said on a previous tape was that it's not 12-tone, and you're against imitation, and you don't like equal temperament necessarily, but rather like dividing the octave in some fashion...

Strang: Well, that really isn't a question of temperament, but let me perhaps give you a fairly considered description of that sort of thing. As I did say on one of the previous tapes, I started out on in an experimental way as an autodidact, trying to experiment with various types of contemporary procedures that I read about or heard, or what have you, simply because there was nobody around who knew enough to act as a teacher for me. In the course of that experimentation, I naturally arrived at some points of view and some stylistic characteristics that I continued to use. Among the consistent characteristics that more or less carry through from the early stages, is that I've always had a contrapuntal bent. I think everything I've written, including the heavily chordal piano pieces—like [*Numbers*] 11 and 15 [1931-32]—were nevertheless conceived as a form of contrapuntal texture, and they can be best

analysed in terms of a linear movement among the parts. That linear movement in the early stages tended to be somewhat similar to the kind of linear movement that Berg, Webern, and Schoenberg used, avoiding for instance perfect fourths and fifths and emphasizing seconds and sevenths as intervals between parts. And so I tended to avoid tonality rather in the sense of carrying it to such limits that the tendencies of the tones were changing so rapidly you couldn't pin them down, so that I tended to avoid cadences and avoid emphasis on particular notes or tonal centers.

On the other hand, there was always even back as far as *Mirrororrem* [1931], an awareness of the fact that one cannot successfully write music in a completely anarchic sort of medium. There needed to be certain reference points or reference regions or devices to which one returns, which give some kinds of centers that can then be organized to make larger pieces in the same way that tonality organizes conventional works. So, for instance, in the *Mirrororrim* there are the two main tonal centers between B and C, and what, E or F-sharp, I've forgotten. And in other cases there were tones which were emphasized more or less in the manner of Near Eastern music by frequently returning to a kind of horizon tone, or something of that kind.

Since the very early pieces there've always been tendencies to provide some kind of tonal centers which could then be shifted, though that doesn't mean tonalities necessarily. When I say tonal centers, I mean any kind of thing which provides a point toward which one can feel the gravitation or a tendency to move. As time passed, and particularly when

I got to working directly with and under Schoenberg, strangely enough, instead of moving toward a more 12-tone oriented system in some ways I moved in the opposite direction. Now that doesn't mean that I have not used 12-tone procedures. Even in the very early days I adopted the viewpoint that the maximum freshness in the use of a pitch interposes other different pitches in between, simply because of the matter of sensory habituation. When one continually hears a particular pitch or any kind of musical event which is repeated over and over again, the intensity of response tends to diminish as it does with any sensory response. Hence the tendency arises to interpose as many different events between repetitions as possible in the interest of freshness. So, in that sense it tends to lead toward a 12-tone point of view with a maximum degree of freshness for pitches, in which every other possible pitch occurs before you can return to a given one. Now, as a practical matter that is impossible to achieve on a large scale, though in this sense I did move toward the 12-tone point of view. However, even quite early on I felt that there was no real need for there to be 12 such pitches. I have used devices similar to rows which did involve internal repetitions. In other words, they were more like themes or subjects in the fugal sense, which involved greater or lesser numbers of pitches than 12.

For a long, long time...well, let me put it differently. Essentially, all of my pieces are based on equal-tempered scales. Contrary to what you were saying earlier when you posed the question, I've always been interested in tunings and temperaments. But I've never actually used any special temperaments in my work in any overt sense. That again has to

be modified in the vocal works, like the Whitman pieces, and to some extent in the solo pieces for woodwinds, clarinet and flute.¹⁵⁷ I've always intended to allow for the small shifts and adjustments of pitches which go with unequal temperaments or other types of intonation. More particularly, that involves the kind of continual subjective adjustment of pitch relationships which take place in the String Quartet [1934], in which a given pitch, as indicated in the score, may be shaded up or down a little bit according to the sound of the situation in response to what happens to the other instruments. Also, I've always had a feeling for the tendency of directions or movements for leading tone effects, so that, for instance, there's always a tendency for a leading tone to be slightly adjusted upward, or even downward. As, for instance, in any style where you have a lot of dominant diminished sevenths, so that a chorus will invariably go flat if it can because there are so many tones moving downward that tend to get exaggerated—so that pretty soon your whole pitch has slipped downward. That, for instance, rarely happens in Renaissance music because the upward-downward leading tones tend to be more or less equal, and they tend to compensate for themselves. But it happens constantly in Baroque and later music because of the extensive use of phenomena like the dominant diminished seventh, where there are more leading tones downward than there are upward. So, I've always had a sense for applying leading tones.

¹⁵⁷ *Three Excerpts from Walt Whitman* (1950) and *Every Night and Every Morn*, on texts by William Blake (1950).

As you can see, my position has been thought out and understood but not necessarily very consistently because I haven't been systematic. My viewpoint has been essentially for tempered scales, but ones that allow for performers to subjectively adjust their pitches somewhat one way or another. Then of course there've been other things that have involved special adjustments. I said earlier that in the early stages I began to use a great deal of augmented diminished intervals, and so on, more or less in the manner of the Schoenberg school. So I became less and less convinced that a 12-tone idiom necessarily had to sound the way the Schoenbergian 12-tone things sound.

Moreover, I was very fond of the clean sound of superposed fourths and fifths. This was simply a matter of liking the rather bare, cool, fresh, clean sound of these kinds of intervals. I find myself gradually beginning to work more in terms of other kinds of harmonic structure than the system of superposed thirds. And from about the time of the war on, you'll find that my so-called harmonic structure—that is, the vertical interval structure—tends more and more to become a matter of superposed fourths and fifths in various combinations, not necessarily always perfect fourths and fifths. That occurred because it turned out to be necessary simply for the same reasons that you have more than one kind of fifths in a conventional scale. You have to do that, because you find yourself forced to incorporate some augmented and diminished intervals in such structures in order to avoid a sort of bald, flat identity of sound quality which in itself becomes dull.

The sorts of things that I learned from Schoenberg were mainly things having to do with such matters as contrast and freshness of style. I always tried to compensate for anything which tended to produce monotony or too much of the same quality of texture. And I remember once talking with Halsey Stevens about fourth chords and such, and Halsey made the comment that he didn't much like to use fourth chords because they got sounding all the same.¹⁵⁸ Well, this can very easily happen. It's like too much of anything. If one becomes too consistent, then one almost invariably invites some kind of monotony. And so I was always concerned about freshness and that sort of thing.

Berman: Wasn't Schoenberg using the fourth in his early works from the turn of the century?

Strang: Schoenberg introduced superimposed fourths but actually he didn't use such textures nearly as much as he's credited with using. There are a few conspicuous cases like the horn theme and the first Chamber Symphony [1906], which runs a series of six or seven superposed fourths as a kind of broken chord. And there are situations where he produced this. But, of course, I found later when I was doing my doctorate and made an intensive study of the Elizabethan madrigals that one can also find fourth chords in the sixteenth century if you want to look for them. Now they arise as incidents to the movement of parts,

¹⁵⁸ Halsey Stevens (1908–1989) was a composer and [biographer](#) who taught primarily at the University of Southern California.

but I have quite a number of examples in my research paper on distance treatment in the English madrigals about how such combinations occur in three or four superimposed fourths, chiefly in the works of people like Thomas Morley and Lorenzo Allegri.¹⁵⁹ This type of a thing has happened incidentally for a long time. Schoenberg also liked such sounds, but he was using them more or less as functions of his part-leading, as I have always tried to do as well. But in my works after the war, you will find that insofar as there is a consistent harmonic structure, it will be based on chords of superposed fourths or fifths, such as has become particularly conspicuous in works like the Concerto Grosso or the Cello Concerto [both 1951].

Berman: How does a piece like a symphony end up, where one part is written before the war and the rest was composed, I guess, in '48? Is there a conflict in the style between movements, or did you make an adjustment?

Strang: Not so much. The early movement which was incorporated into that symphony was already a kind of an exercise in fourth chords, and the rest of the symphony was based primarily on chordal harmony. I don't think there was much inconsistency with respect to that. It just

¹⁵⁹ Thomas Morley (1557-1602) was a composer, theorist, singer, and organist, one of the foremost members of the English Madrigal School. Lorenzo Allegri (1567-1648) served at the court of the Medici in Florence, playing the lute composing for that instrument and for voices.

happened that it was built on some early experimentation in the same general direction.

Let me see if there's anything else of great significance there. Oh yes, to come back to the question of 12-tone techniques, I have used 12-tone techniques quite intentionally and deliberately in a number of the works that were written in the late '40s and '50s, but strictly as a melodic device. For instance, the thematic material for the cello concerto is strictly 12-tone and can be very easily analyzed as such. However, because the supporting texture to the solo voice is primarily homophonic, the supporting material is not necessarily related to the 12-tone series at all. I did not, for instance, attempt to derive harmonic relations in any literal fashion from the row. On the other hand, the row itself was contrived in such a way as in the first place to have each half sound somewhat tonal, in a row, when played successively to emphasize intervals of fourths and fifths.

Berman: Yes, indeed.

Strang: So, there's a consistency in the style between the harmony and the melodic procedure, but it's done by developing a row which itself doesn't really sound very atonal and which emphasizes melodically the same kinds of intervals that are used in the supporting structure on a harmonic basis.

Berman: So you didn't necessarily try to avoid the third and the sixth later on?

Strang: No, not in any strict sense. But you could put it this way, that in the same way that the primary intervals in conventional tertiary harmony are thirds, and they're superposed resultants and other types of intervals that occur in between tend to be used as an incidental or an ornamental tool as central structures. And so thirds, sixths, and of course seconds and sevens arise—particularly sevenths—arise as a result of superposed fourths; and ninths result as a result of superposed fifths. So, seconds and ninths come in partially, but the thirds and the sixths tend to be treated as incidental in the same sense that passing notes and other ornamental or incidental melodic movements are used around the essential tones of tertiary harmony. So, in this sense I suppose you can say that the thirds and sixths are subordinate to the fourths and fifths as harmonic elements in these things. You will find then 12-tone devices used on a melodic basis in some of these works; some of them are quite strict and some of them are only approximate 12-tone techniques. As I say, some of them use more or less than 12 tones in the material. So much for that.

Now there was a big gap in my production between about '52 and '63 or so, which I suppose needs some explanation. But in any case, the electronic and computer works, which date roughly from '63, still tend to use tempered scales but tempered scales which use more or less than 12 subdivisions produce. And so it's still a tempered procedure. It is also in

some of my late computer works, where there is an application, again primarily melodic, of techniques that have become associated with the 12-tone technique, that is. extensive use of inversion retrogrades, a dismembering of series and reconstruction of them and so on and so forth. This kind of thing lends itself very well to computer sub-routines. And so some of the late computer works apply the same kinds of procedure that we associate with 12-tone writing but to pitch series which may be based on, say, a 10- or a 13- or a 19- or a 23-tone subdivision of the octave.

Berman: You said before you had a fascination with 19, was that for any particular reason?

Strang: Well, yeah, one of the old temperaments, one of the old tuning systems, was based on the idea that you could build a pretty good approximation of a just scale which was at least a better approximation than you would get, say, in mean tone or equal temperament, by using 19 subdivisions. And this was in the back of my mind, and I probably used a nine-tone tempered scale simply because it was a handy number which was derived from my previous concern with that temperament. But with the computer works, there are a great many things that I sometimes explored extensively, sometimes over a period of years, which were rather gratuitously chosen. You can always trace these back to previous preoccupations or something of that kind. But the fact that I chose 19 is certainly related to the old 19-tone theory of intonation, but it's related

merely because that number had achieved a certain importance in my thinking. What I was looking around for was a handy number that was not 12, and so 19 came to mind and I used it. So, it was both motivated and casual at same time.

Berman: Was that arbitrary?

Strang: Yeah, it was quite arbitrary. All right, now so much then for the stylistic characteristics, and so on, of which I was aware, and the types of things which I applied in my music intentionally and deliberately. Let us always bear in mind that there must be other things of which I'm essentially unaware because after all this happens with anybody's style. There are personal characteristics which occur not because you deliberately exploit them, but simply because of the accidents that happened or the particular material which occurred to you, and you worked with.

Okay, does that cover the stylistic thing?

Berman: Well, yeah. Now, how about when you taught composition, did you try to impose your characteristics?

Strang: On the contrary, well, that simply is not my point of view and not my way of working. I must say also that that was not Schoenberg's way of working. Schoenberg was very much interested in developing individual students. But the one thing that he never insisted on, at least

during the period that I knew him, perhaps earlier than with Berg and Webern, not certainly after he came to this country. In fact, he tended to discourage students from attempting to write in his style or use his general, or his specific procedures.

Now he was very much concerned about aesthetic factors. Much of his teaching was based on such questions as the manipulation of contrasts and repetitions and the principle of consistency, that is, the consistent use of material of that kind. In regard to these as principles for organizing one's own work, Schoenberg did attempt to tease his pupils but never in any stylistic sense. In the same way, in my own teaching of theory and composition, I have never used my own works as examples, except in a rare case where a question might arise. For instance, when the counterpoint class confronted the use of canon in contemporary music, I sometimes would bring in certain pieces of mine which made use of canonic procedures as illustrations that these devices were not merely confined to Baroque or Renaissance music.

But, no, certainly I've never attempted to [explore that historically]. Well, frankly, I never had that much admiration for my own style of writing. I think that it shouldn't be imposed on anybody else. I mean, why do that? It seems to me that a composition or any form of art should be as nearly as possible a matter of the individual's expression of his attitude toward the state of art materials and the world around him. In this case, then, the last thing that a person should do is to imitate somebody else. If he wants to write in a similar style because this appeals to him, because it helps him to say what he wants to say, "fine." In the

time when I was a young composer the psychological pressure was tremendous to avoid imitation of style or devices or character. The pressure was to break as completely as possible with the past. Now that applied even to contemporaries. That is, we to some extent modelled ourselves after Schoenberg or [Igor] Stravinsky or [Béla] Bartók, or what have you. But we tried to do it differently, and we even went further than that, we tried to avoid even borrowing from ourselves. There was a tremendous compulsion, you see, to be different just for the sake of being different.

Berman: In an individual sense...

Strang: Yes. And of course, that's part of my background. On the other hand, it seemed as I grew more mature that there was really no special merit in originality for its own sake, or originality for the sake of being able to do something that you couldn't do otherwise. Okay, fine. But as far as my composition students were concerned, I saw no reason why they should avoid writing in a particular style just because somebody else did. The thing is to try to find the best possible way of accomplishing what you set yourself to accomplish. And if this involves something traditional, fine, no reason why not. But if you have to approach it in another manner, if you have to find ways of doing it that are different in order to accomplish what you set out to do, then you should do that, do you see? So, my point of view as far as my students are concerned has been, try to find the best possible means of doing what you've set out to

do. That is, borrow where you can, use traditional methods where you can, and invent where you have to.

Berman: Yes, in fact it was completely the opposite, like I said, compared with what was happening at Yale at the time.

Strang: Yes.

Berman: [Paul] Hindemith said in the course of things that you've got to do it in this particular way.

Strang: Precisely, yes. Hindemith was very much that sort of person, as a great many of the European teachers were, who were following the old Germanic tradition where you were expected to learn your Fux counterpoint and to go through all your species; and, indeed, there were certain things that just had to be done. Insofar as they taught contemporary procedures, they adopted the same point of view where you have to do this and this and this, and you have to go through it systematically and it has to sound exactly like whatever the model is. And there was a great deal of teaching along those lines.

Schoenberg never required—or rarely required—anyone, for instance, to write a piece in the style of [Frédéric] Chopin or in the style of [J.S.] Bach. On the other hand, he considered that a competent composer should have at his command the resources where he could do just that if he had to. And he himself would stand at the blackboard and

write samples using a particular multivalent theme—you see, such as were written in half a dozen different traditional styles and had nothing to do with the 12-tone approach at all. But this kind of technical command Schoenberg felt was something a person should have.

Now I was so impressed when I first engaged with Schoenberg, what with his ability to take any kind of material or any theme—or a fugue theme, or what have you—to elaborate and develop this right in front of the class, showing what pitfalls you get into and how to correct them, and so on. And to do this not on the basis of bringing in preliminary examples prepared in advance, or referring to a textbook, or saying, “take this particular example,” or if he told them, “go and do likewise.” You see? But he would come in and he would take up the compositional problems and get himself into trouble and then get himself out, doing it right there in front of you on the blackboard.

And I resolved at that point that I would never again teach by asking students to do exercises out of a textbook, and I indeed never did that. I simply required of myself to acquire similar fluency. And I think it's one of the best ways of teaching composition because a composer is always getting himself into scrapes and having to get himself out. I think it helps a great deal more to get into scrapes and then to get out, and to do things without being so much concerned whether you do them right, but rather about dealing with problems in a way where the students can see how a composer detects problems and how he resolves them. You see, this has always seemed to me far more useful. And so ever since I

was with Schoenberg in '35, '36 and '37, I have done a great deal in my teaching simply by improvising in class.

Berman: Let's regress for a minute. [Josef] Rufer claimed in his book that Schoenberg only used six composers for their music, and this indeed is true.¹⁶⁰ I think they were all Germans—Bach, Mozart, Haydn, Schubert, Schumann, and one other.

Strang: And Brahms.

Berman: Yes, Brahms. But they never varied from that at all.

Strang: In a sense that's true. Schoenberg was very much at ease with them; he felt that students should use them as master examples of how to deal with compositional problems, particularly if you could learn a great deal about form or organization from that. And it's true that probably ninety percent of the examples he used were from between Bach and Brahms, the German composers. It was not absolutely a limit because I have known him to refer, for instance, to [Claude] Debussy or [Maurice] Ravel and to refer to other Baroque composers than C.P.E. Bach, although I must say that he very rarely ever made any reference to music before Bach. In fact, I don't think he had much familiarity, for instance, with the early operatic works of the Renaissance or that type of

¹⁶⁰ Josef Rufer (1893–1985) was an Austrian-born musicologist who studied with Alexander von Zemlinsky and Schoenberg in Vienna.

contrapuntal writing. About as near as he ever got to Renaissance counterpoint was in Fuchs's systematization, and he did teach Fuchs-style counterpart.¹⁶¹ So, that's probably true. Yes. Basically, it's a valid comment.

[A break in the discussion.]

Berman: Let's say we start with the divertimento for any foreign instruments.

Strang: All right, there were two works. There was the divertimento and the variations which fall into this category. And they were a part of an interest I had mainly during '40s in the works were in a sense *practical*. Now, of course, Hindemith associated with *Gebrauchsmusik*, which was in a sense music for special purposes or occasions.¹⁶² But what I was concerned about was something perhaps in one way analogous to some of the works that Bach did, like the *Art of the Fugue*, where no instrumentation was specified. There had been more and more tendencies during this century to individualize to the extent where very

¹⁶¹ Johann Joseph Fux (c. 1660-1741) was the Austrian composer and *music theorist* whose writings were treated as the starting-point for learning counterpoint.

¹⁶² *Gebrauchsmusik* is a German term meaning "utility music," designating music that exists not for its own sake but rather composed for some specific, identifiable purpose.

specific instrumentation was required, and even special techniques on instruments were required and where no substitutions would work at all. Much of Stravinsky's music is written in this way.

So it became important to me to try to do things which perhaps would not require either exceptionally able performers or an exceptional knowledge of contemporary music. And one of the earliest of these was the piece which is known as *1943* or *Overland Trail* [1943], those two being written at the time when I was conducting a junior high school orchestra during the war. I got kicked down to [Long Beach] City College because they had no enrolment, and also they stuck me in the junior high school for a year and a half before I went to Douglas [Aircraft] and I had a very good junior high school orchestra and I thought, "Well, for God's sake, I can write something that will at least introduce these kids to some of the procedures and will not be difficult to play."

So I wrote this piece for orchestra, a sort of overture which had quite a lot of performances for music educators conferences, festivals, and things of that sort. And it was eventually published as *Overland Trail*. Then on a slightly higher level of technique, these two pieces for variable instrumentation, the idea here was to write them in a way where they use the overlapping ranges of several different instruments and where the articulation of attack procedures was capable of being transferred from one instrument to another. For instance, the upper part might be capable of being done on violin, flute, oboe, or clarinet, the second part on another violin, clarinet, or perhaps an alto flute, or what have you. The

lower parts then could be done with the either bassoon or cello, and in some cases there's even a version which involves saxophones.

Now the technical limitations involved are considerable. They not only avoid the staccato but also make it possible for a very staccato note to be substituted and still make sense, though the balance problems become formidable. If you imagine a piece in which you have, say, a violin on the top part and a flute on the second part, or a baritone saxophone and a cello or something of this kind, then what do you do about the dynamic markings? Because of course, in order to get a balance, you would have to shade these remarkedly, depending on the group. You put a flute on the top part and an oboe on the top part or you take a flute and an oboe and exchange them between the two upper parts. That means that the question of prominence is going to be changed completely.

So, now the question becomes very involved. You have to write in such a way so that any of these voices might stick out at any time and still make sense. Every voice has to be melodic enough to stand on its own feet. Nonetheless, the shifts of emphasis from the one to the other have to be such that, if in one part the emphasis shifts from the top part to the middle part, it might in another one shift to the bottom one, or what have you. All of these things have to be kept in mind, and you have to write something which will make musical sense almost regardless of what kind of a quality or qualities you combine. That relates with the relative dynamics or whether a particular tone or a particular instrument

has a penetrating or a retiring tone quality, and so on and so forth. This was what I decided to try to do.

As a matter of fact, both of these pieces, in my estimation, worked out very well. I've heard both of them in all in ten or twelve different combinations, some of them extremely variegated. The variations were all on their own before parts were added for a wind quintet very successfully. The horn and the bassoon and the clarinet were sometimes switched in their parts, and sometimes one of them would stay out and sometimes they would play together in octaves. All this was allowed by the rules, and we worked out a version which sounded extremely well. And I have versions of probably half a dozen different versions of each of them with different instrumentation.

Berman: What do you feel is the best instrumentation?

Strang: Well, actually, I came only to the conclusion that though both of the pieces sounded extremely well for string quartet. As a matter of personal preference I preferred the mixed woodwinds and strings in almost any proportion. But although in some cases they almost sounded like different pieces, and I found myself really not having much preference. I'm very fond of those pieces and I'd like them in almost any type of performance version.

Berman: Then at the Monday Evening Concert it was done by a string quartet?

Strang: Yes.

Berman: Did you have anything to say about that? I know they had a string quartet doing two other works.

Strang: No, they asked me if I had anything for string quartet and I said, "Why don't you try this?" But when I was setting up performances, if I had my choice, I always tried to set it up for a mixed combination, which has been to me the most interesting. There's not much literature available for mixed combinations, mixed chamber combinations, or other options. This was the general thinking behind them, and I must say I still like these two pieces very much.

Berman: Did you ever think of maybe putting a voice with the instruments?

Strang: Well, these pieces were not written to make that practicable. I think if one were going to do it, that would be possible, in the same way that much Renaissance music was written where you could substitute instruments or double the instruments. I certainly would see no objection to that, and I don't question whether either one of these pieces could be done that way. I'd love to see it tried if there were somebody around who had a voice with the appropriate range.

Berman: It'd be interesting.

Strang: That was the idea, don't you see? Now the intent was to make a piece using common materials which might amount to half a dozen or even a dozen different pieces, depending on how players choose to do it. A lot of responsibility lies with the performers to decide what they're going to emphasize, how they're going to handle the dynamic problems, how they're going to balance things out, though indeed it doesn't even matter whether they balance them. The whole idea is to try to make something which makes sense and sounds good. And let the players do their damndest! It improved the more freedom I gave to the players in these things, rather than telling them what I wanted. I would urge them to try to find their way of doing it, and usually the better performances were probably in part because they began to take great interest in their legacy as they began to feel a certain responsibility. And so this sense of responsibility and enthusiasm came out in the performance. So, I think it was a good idea.

Berman: Are they difficult works?

Strang: They're difficult but only moderately so. I would say that either one of these pieces could be done by college-level performers of moderate technical ability, provided they had some sensitivity and maturity in a musical way, you see. They are not technically so difficult as to be formidable. As a matter of fact, I've done them with students, I've

done them with professionals, and they always seem to work almost regardless of who I get to play them. That's one project that I feel quite proud of, and I think have really worked. But it was a very challenging thing from the composer's standpoint, because one had to think these pieces through within one's own mind from a variety of viewpoints. One had to be constantly aware of the fact that the least important or least significant detail might have to be a problem when playing in a given performance or a given combination. It all required constant rethinking. It was great fun writing it.

Berman: Yes, indeed.

Strang: And this took in the process of composition, a constant rethinking as I was putting the thing together, It was great fun writing it.

Berman: Okay. How about the vocal work? He had one right here it's called *Obsidian and the Death House* for baritone and mixed chorus. It's marked for the year 1937.¹⁶³

Strang: Well, now in the first place we should clarify the fact that this thing was never finished, and it was never performed, obviously since it was never finished. I may even still have some of the sketches around. The Sacco and Vanzetti business probably means nothing to people now, but it was a very controversial issue at that time and people got very

¹⁶³ These works were not completed.

emotional about it.¹⁶⁴ People with any sort of liberal or radical leanings became very pro-Sacco-and-Vanzetti, and anti-establishmentarian about it. And so I got interested in it as a current subject which was exciting people around me. I started to work on it, but it's like many typical things, I gradually became less interested in it and I really never finished it. You can tell by the nature of the pieces that I've never had much concern with programmatic or descriptive music. I've always taken the viewpoint that the abstract side of it was the side that concerned me. And so I've really never been able to do much with operatic or descriptive or programmatic music.

Berman: Well, was the work originally meant as a protest or was it meant as a protest?

Strang: Well, it was meant as something which could be exciting and emotionally stirring. It was a subject matter chosen the way that I think “post-operatic” subject matter is chosen because it opened the possibility for making an exciting piece of work. In a sense it was a protest because at that time I was very sensitive about the Sacco and Vanzetti situation, like practically everybody in the circles that I was involved with at the time. And that was a time when it was a risky and radical thing, as it was

¹⁶⁴ Sacco and Vanzetti were Italian immigrant and [anarchists](#) who were accused of murdering a guard in an armed robbery in April 15, 1920 in [Braintree, Massachusetts](#) see https://en.wikipedia.org/wiki/Sacco_and_Vanzetti.

even to be pro-labor. We were pro-labor, and the Sacco and Vanzetti business was tied up with that. There were a lot of things which led us to be excited about it, and so it was an exciting subject. But it, someday I suppose I'll go back through my manuscripts, and there may be some brief sketches on the thing that still exist, but I suspect that most of it has gone down a wastebasket long ago.

Berman: How about the Walt Whitman pieces?

Strang: All right, now the Walt Whitman pieces were written during the period when I was concerned a great deal with trying to write stuff that would be accessible to other people than the already convinced, or indeed highly professional musicians. At the period I was most concerned with textures built around fourths and fifths, and I intended these pieces to be performable by any college musical group. I had longed for many, many years about my interest in English madrigals, and as I say, I had written a 300-page research report on dissonance in English madrigals as part of my doctoral studies. My pieces were intended to be somewhat madrigalesque or like motets or madrigals in texture and character. I did so knowing the difficulty that singers had in that time, more than they have now, because they've been trained differently. In that period singers would have had grave difficulties dealing with the types of intervals that have become commonplace in contemporary instrumental music—large leaps, augmented and diminished intervals, involving logical juxtapositions of flats and sharps, diminished intervals, and so on.

Singers simply didn't cope well with this kind of problem. I set out with the point of view of making each individual line and the intervals as straightforward and easy to sing as possible, perhaps no more difficult than the usual vocal part in a conventional work in, say, in a sixteenth-century work.

And I think most of the time this is true because the individual melodic lines, the intervals involved, the ranges, and so on, are quite easy. The problems that arise in them come mainly from the vertical juxtapositions, not just a matter of dissonance, but particularly from the quartile harmony that is used. The problem here is basically that fourths and fifths—*perfect* fourths and fifths—are peculiarly sensitive to intonation, and have to be much more precisely tuned than thirds and sixths. We can tolerate thirds and sixths which are way off from the theoretical size. But fourths and fifths are extremely touchy, particularly since they were based on the tempered fourths and fifths, which is not at all natural for vocalists. Vocalists tend to produce these intervals as smoothly as possible, and so they tend to keep slipping from the tempered into the justified intervals. As it turned out, when these things were sung, singers really had great difficulty with intonation, even though in a few cases, as with the Valley State City College, a madrigal group learned to sing the parts well. The articulation, the handling of the words and so forth, was extremely well done. But the pitch situation, even in that case, never really settled to the point where you could feel from beginning to end that the performance was accurate in pitch. You

always felt these things slipping slightly out of tune, and then needing to be adjusted as they went along.

Although these pieces were later published, and even sold pretty well, there haven't been a great many performances. Many choirs have rehearsed them; Frank Pooler even rehearsed them for a while with the choir here [at CSU Long Beach], but I can't remember that Pooler ever put them on a program.¹⁶⁵ They never seem to be able to get a performance over the point where it quite satisfied them. And I now understand this because I had the same feeling when I was invited to rehearsals. The other piece for this kind of combination was set to "Every night and every morning," a text of William Blake. That was written especially for John Shaw when I was at Valley State [University], where John had a professional group for a time, very good singers, a group of I think five or possibly six. They did a great deal of Renaissance music. However, they sang that music not as a choral phenomenon but as solo singers. And so I wrote it for John and for that group, and they did perform it a few times, and I even have a tape of it somewhere. It's not a very good tape, I did it at a rehearsal. It's in very much the same style, and I must say I personally still like all of these pieces very much. Some time I would just love to get a really good performance and a good tape of them because I enjoyed the whole experience.

¹⁶⁵ Frank Mairich Pooler (1926-2013) was Director of Choral Studies at California State University, Long Beach. He was widely known for leading the pop music group The Carpenters.

There's an anecdote that applies to all this. One of my old, old friends was a Japanese *shakuhachi* player; whenever a visiting dignitary from Japan would come, a monk from a monastery in Nakagawa, or something of that sort, he would always invite me along. He recorded a piece specially for me, and one thing led to another, and he wanted to hear some of my music. Well, I hardly had any idea what on earth I could play for him, although he was a very intelligent, a very cultured man, despite the differences in cultures. So, I played the recording of the Whitman pieces for him and he said afterwards, "But this is religious music." Well, I thought it was interesting, as you see. It didn't seem to bother him with the fourth-chord texture and that sort of thing; the general character of the thing struck him that way. And, of course, the pieces were as secular as they could possibly be, but it was interesting that that was his reaction—funny, isn't it.

Berman: Any other pieces, do you have any particular interesting stories?

Strang: Well, as long as we're doing this I should probably comment on two other pieces. One is the Concerto Grosso [1951], which was at the sort of at the end of the period when I was trying to find ways of making pieces that were a little more accessible, a little more performable. So, the Cello Concerto [1950] to some extent, along with the Divertimento [1948] in the Variations [for Four Instruments, 1946], were of course for specific instrumental combinations. Now the Concerto Grosso is in five

moments, the idea being that the first and the last movements are sort of concertos for the whole group. The three inner movements are little concertos for groups of individual instruments. One of them is a concertina for the woodwinds, and there is also a concerto for strings. In one of them it is the other way around in the middle movement, it's a little concerto for horn with the others backing it up and so on.

The piece does make use of some 12-tone devices, and they're way different from the others. There is a 12-tone series which appears most conspicuously in the first and last movements, but which is presented once again, mostly melodically, but often in parallel fifths as a kind of ground. The last movement is a kind of passacaglia-like set of variations over a ground base. The ground base consists of a 12-tone series, which is mostly enunciated in fifths in the lower instruments. The middle movement is particularly formidable. It's a slow movement, and the horn player's lips tend to just simply get paralyzed because he has so many long passages and long notes to sustain. The middle part then is horn-free in order to give them a little rest. I had to make one change toward the end of that movement at a place where the horn has to pick up a note and hold it, after which he's gone. And so we worked out a device where the bassoon could pick up this note in a register where it can be played so that you can't even tell. There are things like that that occur in the piece.

Now the other piece is the Cello Concerto [1951], which of course is recorded by CRI [] and got me the opportunity to play the cello part as

it was premiered by Kurt Reher, incidentally.¹⁶⁶ Well, that is a piece which is again still basically in the quartile style, but I don't remember whether we put this on the tape or whether we were just talking about it. Essentially, the solo part, whether it happens to lie in the cello or shifts to one of the other instruments, is a very strict 12-tone construction. It's quite literal and quite straight-forward, and the 12-tone series can be traced melodically in the solo part throughout the entire piece. But as a melodic phenomenon, the connection between the row and the supporting material lies in the fact that, again, the row comes from the intention of getting away from excessive emphasis on seconds, sevenths and augmented fourths in the Schoenbergian style. The row itself is constructed with melodic intervals emphasizing fourths and fifths, which does not therefore sound terribly at home. It sounds more freely tonal than atonal, even though it does use mostly quartile harmony. The texture is that sort of sound.

Berman: I noticed that the instrumentation is very similar in both of these pieces, a basic set of woodwinds with their particular sound. Do you like that type of thing?

¹⁶⁶ Kurt Reher (1913-1976) was a prominent solo cellist; he was born in Hamburg, Germany, and died in 1976 in Thousand Oaks, California.

"CRI" denoted Composers Recordings, Inc. a record label dedicated to the recording of contemporary classical music by American composers.

Strang: Well, I was at that time interested in mixed chamber music, and the combinations chosen were also similar to the combinations chosen for the two variable instrumentation pieces. No, the idea was for a combined texture of woodwinds and strings. There was one problem with performing them which was faced right from the beginning, I think successfully solved. In the orchestra a single, solo woodwind is taken as the equivalent of a section of the strings. And so it's not at all uncommon to balance a single clarinet against the whole violin section, or something like that. Now what do you do when you have only a single string instrument? The inherent amplitude characteristic is that all the string instruments in the woodwinds are on a different sonic level. It's just simply a fact of life that a clarinet or an oboe or a bassoon, and particularly a horn, can produce a much bigger *forte* than a violin can. It doesn't necessarily mean that it will have greater prominence, but from a sheer standpoint of decibels, its decibel capacity is much greater prominence than the wind instruments. And so you have all of it is a problem. It was a problem that Schoenberg did not always resolve successfully in the Chamber Symphony [probably the first, 1906], especially in its original version where the string instruments are constantly struggling to be heard.

So, it was one of the problems of composition with both of these pieces to try to contrive the composition in such a way that the stringed instruments would be heard when they were supposed to be. It was also contrived in the dynamic relations so that when a balance was intended it would actually be possible to produce it. And this was a forthright

problem which was deliberately faced, for which attempts at solution were made. And if the players really think things out, really pay attention to how they're sounding as a group, it's perfectly feasible to handle this problem. even in the passages where there are doublings, though rarely in the octave. In a few cases doubling is in the octave, but mainly doublings are in the fourth or the fifth. Even in the cases where there are double lines, the balance problem seems to be pretty well resolved. On that score, I think I succeeded. Anyway, that was the kind of thing that was involved. Now I think that... Well, anyway, this gives you my own analysis of the problems and the characters of all of these pieces.

Berman: Thank you very much!

Interview 8 with Gerald Strang: Led by Mitchell Berman

Strang: The last time we talked we were dealing with material up to the early '50s or thereabouts, during which period I was still occupied with more or less conventional combinations of instruments, and more or less conventional methods of organization of sound. But several things happened along about that time which conspired to produce a long hiatus in which I didn't compose at all. One of them was purely personal—about that time my wife of that period had a serious case of rheumatoid arthritis and became confined to her bed and a wheelchair. For the following six years or so I was involved with teaching full time, acting as nurse for her and taking care of a small growing boy, doing all the cooking and the gardening. I was simply snowed under with just the mechanics of living, and I didn't have much time or energy for composing. But even then I devoted my summers nevertheless to composing without too much result that satisfied me. And part of it lay in the fact that I was simply dissatisfied with the general approach I'd had to musical materials, indeed the resources available then—even with the 12-tone system and the advance in the general acceptance on the part of audiences.

Still, I wasn't satisfied with what I could do or what I could say for the material available, as I remarked only to Peter Yates during that period. What about the infinity of other pitches that lie between the cracks of the piano keyboard? Why do we have to use just 12 tones to the octave? What's the special magic about this peculiar mathematics of music which leads us to make divisions by 12 and so on? Why isn't the octave divided by 10 or 17 or 19 or some other number, why only integral

numbers? All of this, indeed these limitations, are shutting us off from a vast area in the sound spectrum that is simply ruled out of use. We know perfectly well that there is an infinite continuous spectrum of sound from the lowest pitches that the human ear can hear right up to the highest. And really a musician should not be foreclosed from using any part of that spectrum.

Now, of course, you may want to apply the same sort of thinking tool that proves true for rhythmic organization to the organization of musical events through particular tones. Why do we have this discrete, always integral type of organization? Why must we have four pulses of equal length within a unit, and then repeat always four within the larger units? Why not 4 and 17, for 60 seconds or something of that sort? And why does it need to be, why do we need to keep within such a scheme? By that time already we were altering measures, modifying the length of measures, and doing a lot of things to attempt to stretch the rhythmic limits of the earlier conventions.

But still as far as time values and successions of events are concerned, there is a continuous spectrum with an infinity of possible choices within that continuous temporal spectrum. And it bothered me a great deal that the unchallenged assumptions imposed on us by convention were barring us out from a lot of resources which otherwise should be valuable to a composer. And so for all these reasons during this period I wasn't able—in practical or aesthetic terms—to satisfy myself with the composing I was doing. I was no longer satisfied with the style represented by the Cello Concerto [1951] or the Concerto Grosso [1951],

and also the choral pieces which I had written in the preceding years. During that period I was speculating along these general lines.

At the same time this was a period when I had recently designed the [Long Beach] City College Music Building. We had equipped it with what for that period was excellent equipment, very easily and readily available for use. And, of course, I was there for getting more and more deeply involved in electronic equipment and the use of tapes, recorders, and synthesization of sound. At the same time I did some experiments with Wesley Kuhnle on certain tricky recording problems: such as how to record not just a harpsichord but rather, a clavichord.¹⁶⁷ This turns out to be almost an impossible thing unless you can somehow force the person who's listening to the tape to keep the volume down to a level comparable to the level that the clavichord produces directly. As soon as you turn up to that level—or to a level corresponding to a harpsichord or piano—a strange thing happens. It ceases to sound like a clavichord, and it acquires an entirely different tone quality, entirely different character. And this again points to the importance of psycho-acoustical factors, the fact that, for instance, among other things the human ear does not respond to frequency in a linear fashion regardless of amplitude of the kind, of the way, in which we hear. For instance, a high or a low pitch is a function also of the loudness of these pitches. And at low pitch levels we

¹⁶⁷ Wesley Kuhnle (1898-1962) was a specialist in the harpsichord based in Los Angeles who recorded J.S. Bach's Art of Fugue in two-part version with Richard Buhlig. In 1934 he travelled to Europe with Buhlig and Henry Cowell.

are very much less sensitive to certain parts of the spectrum than we are at high pitch levels. We need to reexamine the interaction of all of these things in terms of the way in which the listening apparatus in the human mind reacts.

So I got into extensive reading and study in the field of acoustics, psychoacoustics, and other such things. All of which then led me, as more and more electronic equipment became available, to become more and more interested in using either electronic sources or something of that sort. In fact, when I did the faculty Honors Lecture at [Long Beach] City College in the middle '50s I chose for my subject what we could anticipate in the next fifty years. I pointed out that we were more and more bound to switch over to dependence on both computers and electronic sound producers, simply because they could do the sorts of things which were impossible within the conventional framework. And that, of course, was one of the things that happened. This was before the days of easily available keyboard-operated synthesizers. Moog and Buchla didn't come along with their machines until the middle '60s, and so if we were going to use electronics as a base, we were stuck with using oscillators and primitive sound producers.¹⁶⁸ And then there

¹⁶⁸ Robert Moog (1934-2005) invented the electronic music synthesizer in the period of 1963 to 1971. Donald Buchla (1937-2016) was co-inventor of the voltage-controlled transistorized modular synthesizer. Their inventions fundamentally reshaped the possibilities of the sonic landscape and contributed to the groundwork for the philosophical and technological development evident in modern synthesizer theory and

developed recorded bits and pieces as well as re-recording and splicing in the most elaborate fashion. This was a terribly primitive, time-consuming, and frustrating process. And, of course, it wasn't until the middle '60s that highly sophisticated computers became available for the same purposes.

Anyway, what happened was that I literally wrote nothing for a period of at least ten years or so. And I began to come out of that, and began to produce again, really about '62 or '63. By this time I had moved over to the State College at Northridge [now California State University, Northridge] and had built another music building with still more sophisticated and extensive electronic equipment, fine quality tape recorders, and this and that, so that I was now able to work with much better resources than I had before. But the computer side of things had become tremendously intriguing, and in 1963 I was asked to participate in a symposium at UCLA with some other composers.

I was in discussion with John R. Pierce of Bell Labs, who was about to present a case for computer generated sound and computer composition.¹⁶⁹ This took place, as nearly, as I can remember, in the spring of '63, though it must have been in February or March. As it happened, I was the only one in the panel who had ever heard of John R. Pierce before. John at that time was the Director of Communications

practice.

¹⁶⁹ For Strang's work with John Piece and the Bell Labs, see Heinz von Foerster and James W. Beauchamp, eds., *Music by Computer* (New York: John Wiley, 1969), 133-39.

Research at Bell Telephone Labs.¹⁷⁰ He was at that time directing the team that was developing Telstar and communication satellites and was an important man in experimental electronics.¹⁷¹ Under his supervision there evolved a man named Max V. Matthews, who was basically an electrical engineer but who also carried his fiddle along everywhere he went to a scientific conference meeting, hoping that you could work up a string quartet or a trio-playing session.¹⁷² Max had devised a basic computer program which could be used to synthesize sound and which could be used for some of the composer's function. And since I did know John—indeed had read his science fiction articles and things of that sort—he invited me to come back to Bell Labs and do some work there with computer-sound synthesis. I spent the summer of 1963 at Bell Labs, and it was a salutary experience in many ways. It had a tremendously stimulating atmosphere with a great many outstanding scientists doing all sorts of interesting things all over the place. And one of John's ideas

¹⁷⁰ Bell Laboratories, formerly AT&T Bell Laboratories, Inc., is the research and development arm of the American Telephone and Telegraph Company but is now joined to the Finnish telecommunications company Nokia.

¹⁷¹ John Robinson Piece (1910-2002) was an electronic engineer who worked with a team at the Bell Telephone Laboratories in Murray Hill, N.J., developing radio communications and also electronic music.

¹⁷² Max V. Matthews (1927-2011) developed "MUSIC," the first widely used computer program for sound while at Stanford University's Center for Computer Research in Music and Acoustics.

was that people who are doing this kind of work should be constantly stimulating and fertilizing one another, and that this should lead to cross-referencing between disciplines. He used to turn me loose among people who were working on the early laser work on holography [the study of light fields], on liquid crystal research, on the psychoacoustics of vision and the psychoacoustics of hearing, and so on.

That was a tremendously stimulating thing. It was also frustrating because I knew nothing about [such work on] computers beyond an indiscernible acquaintance with Fortran.¹⁷³ I didn't even know what Fortran was. They sat me down in office, gave me a bunch of in-house memos, showed me where the computer was, and said well, there it is, go ahead, and if anything you don't understand feel free to ask. Of course, I had no idea what questions to ask and who to ask them of. And so I sat there in their office and fooled around and tried things and got somebody to show me how to input cards into the big computer there, and one thing led to another. To make a long story short, by the end of the summer I had turned out a couple of things—I was actually producing some very short computer pieces. It was a tremendous eye-opener.

And it also made it possible to dig into a lot of the problems I'd been stewing over in the previous ten years. As far as the computer was concerned, I couldn't care less whether you use tempered pitches, or whatever kind of pitch system you use, or whatever kind of temporal organization formal structure, or whether or not you make melodies or

¹⁷³ Fortran is a general-purpose programming language that is especially suited to numeric computation and scientific computing.

any of these things. It was simply a very facile, very rapid means of accomplishing calculations—but at the same time, in a human sense, a very stupid piece of machinery. The darn thing will only do what you tell it to do, nothing more, nothing less. And one suddenly realizes that as composers we had been accustomed to giving performers a very sketchy set of directions, and then expecting them to make the music, leaving far more of the choices and far more of the fleshing out of making the piece to the performers than we had ever realized. We thought we were telling him exactly what to do. And then, when it didn't do what we expected, we griped about it. As a matter of fact, our experts gave instructions to performers which are simply a set of hints and suggestions. One of the results of working with computers was a realization of the very large part—a very important part—that the performer has in the realization of a composer's music. And this isn't bad at all, it's good. Still, if you have to give instructions—complete, full instructions—for every little nuance, every little detail, every element of phrasing or separation or attack or decay or every little tiny nuance, it becomes both very cumbersome and very frustrating. Plus the fact that when you delegate such functions to a machine it has a tendency to become, well, what we call “mechanical,” meaning having too much simple repetition and not enough constant, continuous variation. One becomes more and more aware of the fact that any form of art is, in one sense, simply the art of continuous variation of chosen materials, whatever they may be.

Another thing that you become very much aware of is the fact that any artist's primary responsibility is to fence himself in. That is to say,

with the computer you face almost unlimited possibilities in almost any direction that you want to direct it. So, if you are going to compose in any true sense, and you are going to make a work of art, the first thing you have to do is to limit yourself to very precise resources and not attempt to do anything that comes into your head to exploit the full range of resources at any one time. Now, we'd always done something like this, but we hadn't rationalized it, we hadn't thought about it. If you are going to write a string quartet you don't write the same thing as if you are going to write for a symphony orchestra or a voice. These things have already set limitations since you're making choices of this kind, you're limiting your field. And, of course, the conventions which you accept for your art are additional limitations. But when you start dealing with electronic equipment or with a computer, that very kind of limitation is no longer present. You have to decide how far you can go, how far you will go, what sort of sounds, and what sort of materials you will work with. You have to make the same decisions you always made, plus a lot more in determining what you are going to do.

So there are a great many implications involved here which are not obvious on the surface but which do change your thinking and, in a sense, make the composer far more responsible for what comes out. You can't blame what comes out—or attribute it—to the knowledge and the traditions of the past. If there are any traditions involved, you make them for yourself, you select them for yourself, and nobody but you is responsible. So you can't pass the buck to the computer. And you have to

become more and more a responsible individual and make yourself responsible for everything.

Berman: What about the subjectivity of music? It doesn't always do what the composer wants.

Strang: Well...

Berman: I was thinking about how the performers always look at it, saying "this is my interpretation," and how that connects with the composer's role, thereby completely destroying it all.

Strang: Well, yes, the computer can't do that. Let us say that the way the computer program operates is that you input whatever resources you want to use, and you set whatever limitations within which you want to work. And then you have to provide instructions which allow the computer to work out every single detail. And whenever you get through with that, whatever comes out the other end will simplify a great deal of what is the actual sound that you have on tape. There are many implications here. In the first place, you have nobody else to blame but yourself for the rendition of it all. In the second place, there is one definitive version of the whole range of varieties which are involved in different performances of a piece. You see that it's developed to such an extent that some of my colleagues have experimented with what amounts to a computer conducting program. That is, you could take the piece of

the sound which has been programmed to unroll from the computer, and then you can sit there with your dials and your joystick and your other manipulators and you can speed it up and slow it down, you can make it louder and softer, you can change its tone qualities, you can produce all of them from the same material in a variety of actual sound outputs. In a sense, then, while trying to restore it you see the variety that is involved in various performances of the same piece.

All of this is of course theoretically interesting and was very important to me because I couldn't attack this kind of thing, except just naively. I had to do a great deal of speculating and philosophizing and hypothesizing, as well as trying and experimenting and discarding choices. So there was a great deal of this process that went into it. But the upshot of it was that when I came back from Bell Labs I brought with me the essentials of Max Matthews's program and went to UCLA, where I worked chiefly with Professor Leon Knopoff in the geophysics area, and with John Gardner, who is a brilliant computer programmer and who also has a Ph.D. in geophysics.¹⁷⁴ We set up a working program at UCLA and modified it to our needs and eventually got to the point where we could produce computer music there.

¹⁷⁴ Leon Knopoff (1925-2017) was an internationally renowned scientist who served on UCLA's faculty for sixty years and made significant contributions in physics, seismology and music. The composer John Gardner (1917-2011) was made an Honorary Member of the Royal Academy of Music in 1959 and a Commander of the Order of the British Empire in 1976.

During that period I was still Chairman of the Music Department at [California State University] Northridge, and then in '65 I became Chairman here at [California State University] Long Beach. Such time as I had I devoted to working mainly with the computer program. After my retirement in '69, I went back to Bell Labs for another three-month stint and did some more computer music there. And then in turn, after that, I came back with the newly devised music in a somewhat more versatile computer music program and then got established with UCLA and continued to work with that program. So between 1963 and 1974 I was involved with computer work steadily though not continuously. At the same time as I retired in '69 I was invited to inaugurate the new electronic music studio at UCLA, which was supplied with the relatively newly developed synthesizers by both Moog and Buchla. And so I had not only a chance to work with this type of electronic equipment, but also had to pull the together and make enough sense out of it so that I could teach young composers how to use that equipment. And I continued to teach that class for six years at UCLA.

This being a general outline of my development as a composer during this period, one could sum it up by categorizing it that during the '50s I was for several reasons not productive as a composer. That happened partly because I simply didn't have the time and energy, but partly owing to the aesthetic crisis in which I had, for my purposes, exhausted the possibilities of the style I had been working on. I was searching for a means of exploiting much wider resources, much wider fields of possible music production. In the early '60s it became more and

more possible to do such exploration through computers and later through synthesizers. And then from roughly, well, 1963 or 1964 on, I did produce a lot of tapes. Part of them were done with computers, and part of them were done with electronic equipment. And one could say that a common element in all of this electronic music was in the first place to determine what the resources could enable one to apply. That led me to attempt determining what way these resources had enabled me to use aspects of the fields of sound which previously had been unapproachable or unusable for practical reasons.

This came partly from my own thinking into methods of organizing and developing such music, thereby making sense of how it related to what had happened before and needed to be made comprehensible. But it still would not be restricted to the fixed pitch systems, the fixed rhythmic organization, and so on. In the process I explored out from what we had learned to do in terms of the contemporary music of the first half of the century. And so this was partly a creative progress, that is, actual composition. But a lot of it was a matter of simply exploring these media, therefore making decisions as to where to go and how far to go, and in what directions. The problem with a thing like that is that you are faced with an enormous periphery of the unknowns surrounding your body of knowledge, forcing you go poking into the unknowns on the basis of what you already knew. There has to be a lot of experimentation in determining what direction to go in and how far to go on in these unknown speculative fields. And that's about I think what was going on during that period.

Interview 9 with Gerald Strang: Led by Mitchell Berman

Gerald Strang: Now, to attack the subject of computer music, my involvement was rather peculiar and serendipitous in its origin. I had, of course, done some pioneering in the use of electronic equipment for classroom use, devices originally designed for the Long Beach City College project. And then when I went to [San Fernando] Valley College and did the music building in Northridge I included a great deal of recording equipment and that kind of thing. At that particular time, the work was just beginning on the development of synthesizers, but the Moog was not yet out. And at the same time there were some people in the East [Coast] who had been working with computers, who had for quite extraneous reasons developed methods of synthesizing sound by computer.

The chief leader in this whole business was a man with the name of Max V. Mathews of Bell Telephone Labs, and he was aided and abetted

by his boss who was John R. Pierce, then Director of Communications Research at Bell Labs, and incidentally the man who thought up the idea of communication satellites. He was the one who is responsible for the building and flying of Telstar, which was the first of the common communication satellites.¹⁷⁵ As a kind of a side issue. Bell Telephone Labs was not as such interested in developing computer development or that sort of thing. But as part of its research in both speech and musical sound, connected with the transmission of radio and television programs, they developed this system for synthesizing sound. Basically, the principle of it was that you can sample any kind of ongoing physical event and get a series of values which then will give you an approximate description of the event itself. Now, this is obviously a discreet business. Whereas technically you get a step-wise sampling series of hard values, an event like a sound event in air is a continuously varying event. So there is a discrepancy between the physical description of it in terms of a series of values, and the actual event itself, which is a continuous fluctuation of values. Note that sound is an analog affair in the jargon of acoustics and computer research. To approximate physical sound by artificial means you have to have a continuous medium such as a varying

¹⁷⁵ Max Vernon Mathews (1926-2011) was a pioneer of computer music who worked at the Bell Laboratories on its many projects. Telstar is the name of various communications satellites launched into space in 1962 to expand communications media generally. John Robinson Pierce (1901-2002) was worked in the fields of radio communication, microwave technology, and computer music.

electrical current. But the idea of the digital computer is precisely the reverse, that is, it gives you a series of discreet values, and so there is this lack of a continuous element.

Max Mathews—being both a fine engineer and a fine theoretical physicist—was also aware of the fact that you can approximate things with discreet values to varying degrees of precision. And when you get sufficiently close samples in terms of time, the difference between the continuous event and the series of discreet events becomes a vanishing difference. In other words, it's the same principle as the motion picture, since a motion picture is actually a series of discreet still photographs. But if you present the one after another at a rate which is faster than the ability of the human sense organs to discriminate, they tend to run into one another. So the psychological response or the psycho-physical response of a human receptive apparatus is equivalent to what it would be if you had a continuous presentation. If you present visual images in a fast enough sequence you perceive it as a moving continue, a continuous moving, changing image. The same thing happens with sound except, of course, the numbers involved are different. You can do very nicely with the motion picture with twenty-four frames per second. But if you want to approximate musical sound where you have a frequency range of, say, up to 10,000 maybe 15,000 cycles per second, you have a number of samples according to theorems that have been pretty well proved, and the number of samples you have to have has to exceed twice the frequency that you want to reproduce. Even though opinions differ on how hi-fi you need to be, you need somewhere in the neighborhood of

8,000 to 15,000 cycles per second to reproduce a reasonably indistinguishable example of an acoustical sound. Since you need a frequency range of that order then you've got to have a sampling rate of at least twice the frequency rate you want to reproduce.

The early attempts didn't go anywhere near that; they were more concerned with recognizability than they were with precision. And in the same way the early telephones would reproduce recognizable speech but didn't sound very realistic or very natural. Some of the early computer material sounded somewhat less than natural because of that. The computer music programs used a sample rate of 10,000 samples per second, giving an effective high frequency limit of about 5,000 cycles per second. And that, of course, is a full octave to an octave-and-a-half lower in pitch within the highest overtones which the human ear can hear.

So there were some limitations on the procedure but essentially this was the state of the art. They had worked out a program whereby the computer could be made to calculate a series of samples of that order. And then when those sample values were played back in such a way as to produce an electrical current of equivalent strength—a proportional strength—you could produce a sound which was a reasonable facsimile of the sound that was intended or the sound which you intended to imitate. This much was available, and in 1963 we knew that something of the sort was being done, more or less, by coincidence. It turned out that Henry Temianka was then setting up some affairs that were supposed to drum up support for the California Chamber Symphony, and they were approached by Max's good friend Simon Ramo of Thompson Ramo

Wooldridge, which is now TRW.¹⁷⁶ Likewise, Ramo, who was a Caltech man, knew John R. Pierce. And Ramos thought, why don't we get Pierce out here and have him talk to the California Chamber Symphony with a lot of engineers and technical people who otherwise we wouldn't reach. And who knows, you know, maybe it'll be a good thing.

Well, anyway, John Pierce agreed. He came out and brought Jim Tenney, who was at that time working at Bell Labs, and they shipped out a bunch of equipment for reproducing the sound.¹⁷⁷ They put on a symposium at UCLA in the spring of '63 in which John Pierce presented what was then the native state of the art for computer sound production and composition. It was pretty primitive. And they thought it would be really good idea to face this technical brand of sound that drummed up a controversy with some composers. They formed a panel consisting of Karl Kohn and myself and, let me see, Bob Trotter, who was then Chairman of the UCLA Music Department.¹⁷⁸ There may have been another, I forget,

¹⁷⁶ Founded by the violinist Henry Temianka (1906-92) in 1961, the California Chamber was the first orchestra of that kind in Los Angeles, offering concerts in Royce Hall at UCLA. TRW (Thompson Ramo Wooldridge Inc.) was founded in 1901, offering aerospace, automotive, and electronic components.

¹⁷⁷ James Tenney (1934-2006) was composer at Bell Labs, involved in psychoacoustics and computer music. becoming the first composer to take an interest in computer music research.

¹⁷⁸ Robert Moore Trotter (1922-1994) was President of The College Music Society and Dean Emeritus of the School of Music of the University of

but this was approximately the people at the panel. And after John had presented the state of the art in computer music, we were supposed to ask him questions and make comments and so on. The upshot of it all was that, in the first place, the attempts were rather primitive. The compositions which they presented were mostly things like Max Mathews' famous version of *Bicycle Built for Two*, with computer speech and imitation clarinet sounds. And so the composers were a bit skeptical about the whole thing. But it happened that I knew something about it all and I knew about John Pierce as an old science fiction addict like me, and so John and I hit it off. When I saw him I said, "Well, there are certainly lots of us who would be very much interested in seeing what could be done with this sort of thing if we only had access to it." So how does a mere composer get access to a million dollars' worth of computers and the time and acquire the expertise, and so on. Doors at the Bell Lab seemed open, and so I said, "Okay, here's somebody who's knocking." About two weeks later John wrote me and asked me if I would like to come back to Bell Lab that summer as a special consultant and spend the time working with the computer program.

So you see, the whole thing was more or less an accidental situation. That this happened at that time related to the fact that I was the only composer in the area who had a little scientific know-how and knew what they were talking about. And the fact that John and I sort of hit it off pretty well. Of course, we've been very close friends ever since.

Oregon. Karl Georg Kohn is an American composer, teacher and pianist who taught at Pomona College for more than forty years.

Naturally, the first thing I did was to say, yes, of course, and I departed for Bell Labs the day school was out, and they sat me down in an office and gave me some mimeographed pictograph memos on the program. Max Mathews, who developed the program, was away for the summer in Europe, and so, I didn't have him to refer to. But they said, "Well, here's the stuff and there's the computer center and here's a number in a box you can use. And go ahead and if you have any questions, just ask." Well, of course I didn't know what questions to ask and who to ask them from, and it was a pretty hectic and frustrating summer. Added to that was the fact that the program [for musical projects] had just been revised, a new version of it called *Music Four* was just being implemented, and unfortunately nobody could get the sound going on it, because there were just so many bugs in it. So I was not only trying to learn how to do it myself, I was also part of the team that was debugging *Music Four*. The upshot of the whole thing was that I never worked so hard in my life or for such long hours. People at Bell Labs were nominally working an eight-hour day, but most of them were in and out at all times of day and night. And for us in our section to get the use of the computer very often, we had to make use of night runs. And so, we would be in and out at all hours and I just practically knocked myself out, learning Fortran, learning how to program, trying to apply what I knew of acoustics to synthesizing sounds, and so on.¹⁷⁹ Anyway, I tell you about the personal side of the thing because it was so important to the whole affair, because

¹⁷⁹ Fortran is a general-purpose programming language that was developed by IBM in the 1950s.

computer music involves extensive technical know-how and involves a good deal with theoretical work. You have to acquire new languages like math and new numbering systems. You had to work with at least three different numbering systems, moving from a binary system to a decimal one. And [even though] you have the decimal system you also have the musical numbering system, which is not the same as decimal. And you have computer languages on two or three levels, which have to be squared with communication in English.

So, it was a very involved and complicated proposition, but out of it came my first computer pieces. On the list of my computer compositions, I think it should start with *Number 2* [1963], since *Number 1* was purely experimental and didn't amount to much as a little short thing, but I just did succeed in getting some sound out of it. I got a first-hand chance to hear what these numbers, directions, and instructions meant and what they sounded like. *Number 3* [1963] is a respectable little piece, it's very short, and it presents some sorts of ideas, with experimentation and investigation, which continued to influence my approach to computer music from then on. For one thing, as I've said in some of these previous tapes, I was at that time completely fed up with the idea of working with twelve tones to the octave. After all, it was simply a historical accident that there were twelve tones to the octave. Quite obviously, the more I learned about acoustics, the more I saw that the assumptions we made in musical theory were pretty sloppy approximations and rationalizations, along with truisms we accepted in acoustical theory about scales and things.

For instance, we talked a great deal about relationships among harmonics, but none of the sounds that we produced in a conventional scale could be related to one another as pure harmonics, since they were all a little bit out of tune. We talked in very precise terms about very approximate and inaccurate matters, and so the whole thing bothered me. Also, I was concerned really about pitch materials in two ways. One was, why on earth do we have to have fixed pitches of any kind in the first place? Another was, if we choose to have fixed predetermined pitches, is there any reason why we should stick to the conventional twelve to the octave? Or can we not make other selection? A subsidiary offshoot of that is the question, why on earth does a series of a predetermined picture need to be logarithmically equal, dividing the octave equally, as we say? It's not a very good way of expressing it but it carries for musicians the meaning that we want here. Why do we have to divide the octave equally by twelve or any other number? Why shouldn't we have unequal divisions?

Well, this ties in a little bit with the people who would like to use and experiment with things like just intonation. It's a parallel to Harry Partch's or Ben Johnston's projects of conjunction experimentation with traditional tunings and traditional pitch sets, which do not actually divide the octave literally.¹⁸⁰ So all of this was of great interest to me. And so

¹⁸⁰ Harry Partch (1901-1974) was a music theorist and creator of musical instruments who composed using scales of unequal intervals in just intonation. Benjamin Burwell Johnston (1923-1919) was one of the foremost composers of microtonal music.

the first little piece, which I called *Compusition Number 3* [1963] —and by the way that is *Compusition*, so to say. The field of computers is full of anachronisms and coined words and phrases and all this sort of thing. And it seemed to me that this was an apt way of bridging between computation and composition. So *Compusition Number 3* involves in the first place the use of fluctuating pitches such as glissandi, a way of having lines glide up and down as sirens, and so on. It includes two different equal tempered subdivisions of the optic. I've forgotten, and so I should look it up. If I remember correctly, I used a 23-tone subdivision, yes, that was one of them [the subdivisions], but I forget what the other was.

But in any case, there were two artificially constructed pitch sets, neither of which corresponded to the conventional system of sounds that were continuously fluctuating in pitch. And then there was one other element, which was the use of filtered modified noise as bands of noise, which were technically noise within the frequency range offered by a series of random pitches. In most cases such a very rapid rate of succession of the human ear doesn't distinguish them as different pitches. One lumps them all together, and it has the impression of being than a kind of ribbon of sound or band of sound instead of a line of sound, because most of the noises that we used add up to a large extent in later pieces literally to be described as bands or ribbons or sound. That is to say, they were noise, but noise which was within a certain pitch limit. Now, this might be a wide band in that piece; for example, it starts out with three bursts of noise, with a wide band noise squeezed down to a

narrow frequency range. These sounds sort of form what you might call a noise triangle in which the noise is a wide band to start with that narrows down in three clusters, changing their width. Then there are also places within the piece where a narrow band of sound moves up and down according to some sort of pattern.

Well, anyhow, this gives you some idea of the kinds of things which I started to experiment on immediately. I was less interested in synthesizing or in transcribing some pieces to be played by computer or something of that kind. I think it's important to recognize that my particular interests in the computer type of approach involved precisely expanding the existing musical resources rather than attempting to imitate or duplicate existing acoustical sound. And from the start, and ever since then, that's been my point of view.

Now, there are a lot of limitations involved [in this theory], and especially when you are first dealing with this kind of an approach where you have no familiar notation, where for instance, with nine or twenty-three tones to the octave the useful stuff is perfectly unusable. [It is also] where you are attempting to apply rhythmic procedures which are not at all based on a continuous pulse rate and a repetitive subdivision of a pulse rate, and where your sounds are considered more as matters of certain durations of events rather than a rhythmic succession in the conventional sense. There is a great deal here to frustrate the musician, since all of these things are different, since you can't represent them in conventional terms, and since you have to present them to the computer in the form of a series of numbers that can be either printed out or

punched into IBM computer cards. A musician still thinks as a musician, but you have to translate your musical ideas or your experimental hopes into a series of languages and a series of procedures which are so completely foreign to anything that a composer ever did before that it becomes at first very difficult and a very frustrating thing.

But there are a lot of things which were interesting to me. In the first place, I found that in spite of the problem of translating what I wanted to do in terms that could be handled by a computer and of representing these kinds of approach to musical sound, which did not lend themselves to notation any more. For all these problems, my thinking basically did not change in its nature. That is to say, essentially a composer visualizes or imagines, indeed “audiolizes”, what it is that he wants to be heard. He has an imagination of the thing he wants to do. And he shapes and forms this in his own mind and then he finds a way of expressing these ideas in such a way that it can be performed, or he can perform it himself, whatever.

Now, essentially that same procedure occurs in the computer. The difference lies in the specifics of the thing, not in the thinking process, and in the same way one can't simply start off from a given point and operate in an infinite continuum. That is to say, you have to start some place and you have to go some place. The human mind is simply not capable, under ordinary circumstances of making a completely unrelated leap into a completely unrelated field and come up with something. The probabilities of that kind of thing working are so incredibly remote, and we find ourselves unavoidably working from something that we are

familiar with or something to which we are accustomed to something that we already know. In other words, the business of getting into a field of knowledge—or part of a field of knowledge which hasn't been explored before—involves working out from the present peripheries of one's knowledge.

Hence, it was a quite natural thing that, as far as the manipulating of computer sounds, I was still thinking largely in terms of melody, of counterpoint, of repetitions, and of contrasts. The general aesthetic thinking was not, of course, different from what I had used in using more familiar materials. I was, in a sense, then, trying to explore by moving out from what I was familiar with, what I knew, what I had control of, and expanding out into unfamiliar areas. Now, from that standpoint the computer forms an incredibly useful tool. It's very easy to take a process or a device or a method of operation and to apply it in ways and to materials which are perfectly impossible to experiment with in the physical world, and so one can facilitate exploration of fields outside to a degree that is hardly recognizable unless you actually have done it yourself.

I'll give you one simple example. It's all very well to talk about using 23-tone or 25- or 26- or 19-tone subdivision of the octave. But how do you do it in the real world when all the instruments are built to a 12-tone subdivision and when all the carefully developed techniques of the players are in such tuning? This is no problem with the computer because you simply specify what it is you want to do, and the computer can work these things out. It becomes a trivial problem to produce those

things and then to reproduce and then hear them the same way with particular kinds of sounds and tone quality. We started tending to think of the sounds produced by a particular instrument as being a homogeneous thing, but when we stop to think of every sound produced by every different pitch having a different waveform, and these waveforms not being the same under all conditions. They change when you play loud, they are different when they are soft, and when they're soft the proportion of the overtones changes the balance of all inside.

So, in computer terms you are thinking of sound as being a waveform, and that means that you are defining this quality of sound as a waveform. That means that if you really want to reproduce the sound that an oboe has you would have to provide for an incredible variety of actual sounds, which would change according to the pitch range, the loudness, the type of the attack, and the length of the note. All that could change in the duration of a single note, and this therefore becomes a very complicated task for programming. The computer has a capability of allowing you to do a lot of experimentation which applies familiar concepts but applies them in unfamiliar ways or to unfamiliar materials.

So that once you learn how to tell the computer how to synthesize a wave form, how to produce a particular wave shape which will be correlated with a particular sound quality, then you can program the computer to modify that either in specific, discreet ways or to make it a continuous series of modification. You can program the computer to some extent to superimpose materials upon the tone, given certain control variations. With time you can set up tables whereby the wave-shape

chosen will be a function of frequency, so that you'll have a series of related wave-shapes. If the pitch is high, the computer will choose one of them, and if the pitches is low to choose another, and so on. You can set up conditional branches to use computer terminology by which the computer will then make selections to introduce any kind of controlled series of modifications you want. And you can just about try anything that you choose to try. It becomes a temptation then to spend all of your time trying and seeing what comes out, as it is also a temptation to do the same thing you did with the synthesizer.

And so you find yourself operating under much more rigid restrictions than you do when you are composing in familiar terms, simply because the conventions no longer apply. You have no handy restrictions, like being confined to the twelve pitches of the conventional system. Really, you don't have to think about anything else than that. What happens is that you suddenly learn that nobody can make a work of art without operating under restrictions but with a certain degree of consistency, a certain degree of homogeneity, a certain range of relationships within what you do. Convention will now provide you with few of these tools as part of your biggest responsibilities, as you become much more responsible and are much less likely to do things by whim, by accident. You have to set up a particular framework within which you are going to compose. But, of course, once you set it up, then, if you don't obey your own rules, you are only betraying yourself until you no longer have any pleasant sense in all of the rebelling against the conventions or rebelling against your teachers or whatever. You are only rebelling

against yourself and surprising how unrewarding this is. In this new kind of composing you find yourself then having to set up your own rules, your own formal restrictions, your own procedures, deciding to what extent and how consistently you are going to be confined by these rules. So that you suddenly find yourself in the position where you must become a responsible person, responsible to yourself. And you got to make decisions and stick to them and carry them out, which is a very strange result. You become actually much more rigorous in your obedience to rules, principles, and procedures than you would otherwise have to, simply because you have to set them up for yourself.

Anyway, I don't know that I should spend too much time on these aesthetic and technical matters. Though I think they are of some significance, they show how I am thinking and how they suggest what is dictated by the medium. Perhaps at this point I should go back and be more historical, if you like, describing more or less how I proceeded from here on out, what sort of changes, what sort of things I tended to like, what changes went on in the program and thinking about it—indeed, what sort of things I evolved toward in my music. The sort of thing we are talking about was all tipped off by the work I did at Bell Labs in the summer of 1963. When I came back, the only place in southern California where there was a computer that seemed to be adequate was UCLA. I made contact with Dr. Leon Knopoff, a professor of geophysics but also familiar with professors in the Music Department, and so a really remarkable guy. Leon, in his work with the Physics Department, had access to plenty of computer time, and so with his cooperation I secured

a tape of the five music programs from Bell Labs and brought it back to UCLA. And with Dr. Knopoff's connivance and support, and with the aid of a physicist named John Gardner, we managed to get that program operating at UCLA.¹⁸¹

And so I was able to go on. By that time of course I was back at my desk at [California State University] Northridge and do some more or less continuous work with the improvement of the program and experimentation with it over the next five or six years. And during that period, I wrote several computer pieces of which the most important were *Experand* [1965] and *Tripla Decimal* [1969] and *Decima* [1969]. These carried on the sort of thing that I was dealing with. I of course had spent a lot of time working just to make the program operative at UCLA. When you transfer a computer program from one computer system to another there are all kinds of things that have to be adapted. Since the program was in Fortran, we could make it much more efficient by putting it into machine language. And also it was relatively slow. Since we were not able to compute in real time, it took several times as long to produce the numbers off the computer as it would take to play the music. This required that we do some finagling in between; the computer could take

¹⁸¹ John A. Gardner (1939-) professor of physics at Oregon State University who also developed the Gardner-Salinas braille codes to aid his own problems in eye sight. Dr. Leon Knopoff (1926-2011) earned his Ph.D. in physics and mathematics at the California Institute of Technology in 1949 and came to UCLA the following year in geophysics, staying there his whole career.

its time, and we had to play back the tape after the it was produced at a range involving the necessary sampling. This usually had to be done on a different computer, and we had all sorts of problems getting access to the computers for a long enough time continuously without interruption to transcribe the stuff continuously at a controlled speed. All kinds of things like this were going on.

What we called *Experand* [1965] was an exploitation of random procedure. One of the things that a computer can do with great ease is to set up a random sequence of events, though that term has yet to be defined precisely. What a computer can actually do—helped by *Experand*—was to produce a series of numbers which, though not reproducing itself, will recur in such a way that you can detect the system of repetition among the numbers. It's not germane here how that's done but in fact there are a number of devices available which produce random sequences through numbers of various length. Some of them are extraordinary long, certainly so long that the human ear is never going to recognize a recurrence when it does occur. Yet the computer can do this very readily; it's random in one sense to even start at a particular place with a succession of numbers that is not predetermined by any common system. If you repeat that process you run it through the computer again and you start the same random procedure at the same point, and you are going to get the identical series of numbers. Thus you have a random procedure which is precisely repeatable, which seems like a contradiction. So you have to recognize in the first place that the random procedures are random in a particular way but that as far as the

computer is concerned, a given random series is repeatable as often as you want to repeat it.

Then the other thing that has to be recognized is that, although the term “random” has an obvious naive meaning to us, there are many degrees of randomness, and that randomization can be applied to things which are not random at all. This terminology probably sounds at first hearing like gobbledygook. But it works like this: From a musical standpoint, the value of randomization is primarily that it will produce unexpected events. The problem with most computer procedures is that they are so rigidly controlled that nothing is unanticipatable. And from an aesthetic standpoint, one of the important things about music is that there will be unexpected elements to it.

All right, randomization is a means of producing the unexpected from an aesthetic standpoint. Still, one can, with computer devices produce randomization within limits. For instance, you may have a random series of numbers, but you set it up in such a way that the minimum number will be given enough, and the maximum number will be given enough. And it will be randomized but it will be within those limits. Actually, as the computer produces them, a random series in the numbers go between zero and one. And then, if you want that random series of numbers to be scaled otherwise, you simply apply a multiplying factor to it. So, you imply both, multiplying by 1000 and your numbers are going to be between 0 and 1000, and so on. In the first place, you can apply limits, and if those limits are large enough you think of this as being an infinite range of pitches, if it's applied to pitch. But if they are

small enough, the difference may be so slight that you can't discriminate it at all. So, it's perfectly possible to use a random generator to produce what sounds like a perfectly steady pitch. If, for example, your randomization takes place within a range of, let us say, 1000 for the semitone, as far as the ear is concerned, this is essentially a steady tone. Also, you can randomize various different dimensions in music; indeed, you can randomize the pitch. But you can also apply randomization to durations. And, of course, you can apply it also to amplitudes. Any parameter, any dimension of the sound field that you can describe, can be randomized, and you can apply random elements to it. And you can superimpose randomization, as I use the term, to any sort of fixed element.

So, let's now see what this means and how it produced a piece like *Experand*. Precise pitches become terribly monotonous very rapidly. which is one of the reasons why any performance usually has vibrato. One can recognize that immediately, and it becomes dead and uninteresting. We speak of giving it "life" by using a little bit of vibrato at whatever vibrato is at the variation of the pitch. You can do that very easily with the computer. But if this variation of pitch is absolutely regular, that in turn becomes monotonous. And so, if you find that you want a little variation in your vibrato, you should change the pitch. Not exactly the same amount every time, and not exactly at the same rate but it should have a little life to it, since it should be somewhat randomized.

Well, you see, if you are going to do this sort of thing with a performer, that person has to have control of it all. He does it according

with his feeling, and in effect randomizes it, you might say, in a human fashion. The computer is not human and yet it can randomize in a human fashion. And it has no feelings by which to decide how much randomization to apply. So, what the composer finds himself doing is using degrees of randomization to substitute for these continuous small variations, which are a part of producing a live interesting performance. *Experand* was an experiment with some of these devices; it uses, for example, random pitches, and there are no fixed pitches in it at all. It uses these in rhythmic situations, which are also random in varying degrees.

Now, since the pitches, the amplitudes, and the duration are all controlled, or are all influenced by random number generators, there are no fixed elements of this sort. Then, what do you do in order to make a piece of that kind? How do you produce the composition? Well, this is where my own particular developments come into the picture. By carefully delimiting the amount of randomization that takes place, and by superimposing it on fixed elements one can then get some kind of control by which you can approximate regular musical procedures without having anything fixed in the last details. For example, one can set up a situation in which one produces a vibrato in which the range of the vibrato is related to the frequency. For instance, one can allow for, let us say, a variation of 2 percent of frequency or 1 percent of frequency, or .5 a percent of frequency. Or, one can say, I now want the vibrato applied here, which in terms of pitch is going to be within the range of plus or minus 1 percent of the original pitch. But it's going to vary between zero

and plus or minus 1 percent. Well, this is going to give you then a total of 1 percent variation. But it's going to be non-precise. It's going to vary within these limits.

In the same way, one can say, I'm going to have this vibrato average, say, eight cycles per second, which is about normal for most vibratos. But I don't want it too regular, and so we'll randomize it, that is, let's vary it randomly between 7 and 9 times per second or something. In the same way as the melodic procedures in the piece, which is somewhat contrapuntal, as in a simple contrapuntal piece. The melodic procedures are also randomized in the sense that, for instance, one sets up a contour. Let us say we have a pitch field, which in a given length of time is going to move up through a range of an octave. Alright, but I want a series of rapidly moving discreet tones, so I'll envelope each one of them. And I'm going to produce 20 tones per octave: that is, 20 times per second during this period, which is what we'll gradually move up with. But I want these to be random tones, giving an impression of going upward. And so I'm going to allow those to vary between certain limits, let us say, at a limit of a fifth. I will have twenty random tones per octave within an interval of a fifth. And that fifth is going to be changing gradually, and over a period of time it is going to go upward an octave. And then I can say, well, all right, but I don't want this to be exactly 20 tones per octave if I want to randomize it at this rate. And so, I will say, I actually want this to average 20 per octave, really to vary between 10 and 30 per octave.

Now, I can give this kind of instruction for the computer in which my lines and my pitches will move in particular ways. Or they could be related in terms of durations in which I will have given tone qualities I will apply as envelopes to each of the events that I want, at any rate that I choose. And still, by randomizing pitch duration, rhythmic arrangement rates, and so on, nothing will actually proceed in a perfectly regular fashion. This was the kind of medium that I was using in writing *Experand*, which was obviously an experiment in random procedures.

Berman: But will the computer produce the same spectrum?

Male Speaker: Alright. Once I've set this piece up and given my instructions, I put my cards in, I ask the computer to proceed and it will produce it. And if I run the thing through again, it will repeat through exactly the same series of numbers. And if I run it through twenty times and show it again, the computer will every time produce exactly the same series unless I change something. If I want to get a different version every time, I can arrange it.

Berman: As a different piece?

Strang: Well, it becomes a different piece every time when you do it. But it's possible to do that by simply instructing the computer in some fashion or other to choose an initial number for the random process. That involves choosing a random number, that is, to pick something out of its

memory at random and use that as a starting number. If it can pick from a variety of possible places to make the starting-point, then each series will be different to that degree. But every time it starts with the same numbers, it's going to produce the same random series. So, one can then, if one chooses, set it up in such a way that you will produce a different piece every time you run it. But under normal circumstances, no matter how much random processing you used in the composition, the computer is going to reproduce exactly the same thing every time you run it through. So I mean, this was the sort of thing that happened there, you see.

Berman: When you talk about the three different things that we always associate, the human element has gone away. But it seems to me that even already becomes much more important, especially now if you are controlling everything.

Strang: Yes, indeed.

Berman: Just the opposite of what that means is what it seems, that is, just the opposite.

Strang: Well, what pleases me is that you come up with that conclusion because, curiously enough, this is exactly what happened to me. I found that the more I worked with the computer I became more and more appreciative of the large part that the performer plays in performing

conventional music. And I also became more and more aware of the fact that a composer of conventional music gives the performer only a very sketchy, imperfect idea of what is to go on. When you are dealing with the computer, the composer now has to become much, much, more aware of everything that is going on. And that person has to find not only ways of describing details of compositional musical procedure which are almost always thoughtlessly left to the performer. Or they are left to coincidence or circumstances, requiring that one find ways of reintroducing what you call the human element into the computer by some means or other. And he simply cannot do that by prescribing every individual number, every sample. Nobody could ever write a piece by writing out 20,000 samples per second by hand and put all those numbers in the form of IBM cards into the computer. The computer has to generate these at incredible speeds. The cycle speeds up at UCLA for a 16-digit number, something like 75 billions a second. And so, it can produce incredible numbers of numbers.

Berman: Seriously?

Strang: So, what you have to do is to find ways of instructing the computer to do a lot of things that you would do as a composer. And you have to provide approximations for all of these humanizing elements in some way or another. And so, in a way, the human element becomes, as you say, more important. The way I like to put it, if you are dealing with a computer or a synthesizer, when you are dealing either with the digital

approach or an analog approach, it's still a matter of a human being communicating with human being. There's a truism in computer procedures—garbage in garbage out. And the computer is so literally minded. One of the most frustrating things for a composer working in the computer is that the damn thing does exactly what you tell it, as you know. And if you are not precise enough, if you are inaccurate or if you don't know what you are doing yourself, you're dead because the computer will never bail you out. Many a bad composition has been made to sound like something because you were bailed out by the performers, but not on the computer.

So, it makes one much more self-conscious in a way, but it also causes one to think a great deal more about the variables which exist in any piece of music. We've taken the variables for granted, and you have to become aware of them and you have to learn how to handle them. Also, you have to be very much aware of ways of getting results by using shortcuts and find ways of programming the machine to do a lot of your work for you. And, of course, that's one thing about the computer, that you can delegate as many of the decisions to the computer as you choose. Or you can keep them under your own control; that is, you can specify them as you would if you are writing in a conventional way and specify every melodic page that you want. Or you can systematize it in some fashion or other. One method of systematizing it is to randomize it. That is, you see, you can set up the limits within which you want something to happen and let the composer make choices for you—which is what I was doing in this particular piece. And I've continued to use this kind of thing.

I developed some computer instruments, which is another thing we haven't discussed. A computer is very much like an instrument, it is simply a means to an end, just as the piano is a machine which is never going to produce any music without a human performer. Since the computer is a machine, it is never going to produce any music without a human composer. This enables communication from human to human by means of some kind of a device which can take over a part of the duties of the music maker. Now, for instance, nobody could make sounds like a piano without having a big hunk of wood and a lot of wires and a bunch of hammers and things to do it unless you had a computer. With a computer, you could make a pretty good approximation. Yet the machine is necessary, and it conditions what the composer can do. And in the same way, the computer is necessary as a means and it also conditions what you can do. You can't do the same things in the same way with the computer if you would do if you were writing for a string quartet. This is true. But still, the responsibility for doing it remains that of the composer, and more so because when you work with the computer you come up with the final version, and one of the big problems is the fact that once you get that final tape, that's it. Actually, there's been some work done on producing conducting programs so that somebody can take a previously composed piece and then modify it, performing it to approximate what happens when you get a different performance of the same thing.

Well, all those things are possible, it's just a question whether somebody is going to try them all out. Anyway, these are some of the

things that you experiment with as you do a lot of experimentation.

Whether some music comes out or not can be problematical. I would be the last one to claim that my computer pieces are masterpieces, even in regard to some serious compositions. I approach them as a composer; I consider them as music. But there has to be a great deal of trying and testing and so forth. And the question of whether you come out at the end of all of that deliberate experimentation with a piece of music is perhaps subject to the same limitations as exist when any artist is faced with an entirely new medium.

Berman: No criteria exist for this?

Strang: No such criteria exist. So what you do and what I think is sound practice anyway for any composer, you try to come up with an idea which is meaningful to you. You try to externalize it to make it audible in terms which will somehow produce an intelligible result which is presumably the result that you are after when somebody else hears it. You simply do the best you can to try to communicate. Now, some people communicate better than others and one always finds it easier to communicate in a native language than in a foreign language. And some of the problems of communicating the foreign language exists when you have the temerity to tackle an absolutely new medium like this. So, I suppose I'm in the same position that I would be in if I, being an English-speaking person, chose to write poetry in French. And so, since the results there would be somewhat less than ideal, I don't make claims for my Computer PC—all I

can say is that I thought as a musician. And I tried to communicate something which would be intelligible and meaningful to somebody else, even though I was working with this refractory medium and doing a lot of testing and experimentation along the way. What more can you do? You do the best you can.

And so then, the next two pieces were *Decima* [1969] and *Triple Decima* [1969]. *Decima* was done at UCLA; *Triple Decima* was done when I went back to Bell Labs in 1969. These are pieces which go further with certain types of things than the earlier ones. I continued to make use of, for instance, instruments which would produce random events, mostly with melodic instruments, and now, in a much wider context. In the earlier pieces I used a good deal of noise which was essentially a very rapid successions of random pitches. But then later on I learned to make use of random procedures more in a melodic sense. That is to say, when you separate the random events, or produce them at a much lower rate, in order to sound like separate tones, you begin to get something like a melody. Now, what is a random melody? Well, if it has a shape, you can produce a random melody. One of the elements in these two pieces is a device I call a “random note producer” which produces random notes and various pitches and at various grades, producing melodic contours which I control very precisely in general but which are implemented by random elements which are under certain limitations and controls when it comes to producing the actual pitches.

The best example for that kind of thing which would justify it is that if you have, let us say, a piece like some of the more naughty ones of

Frédéric Chopin which consist of elaborate arpeggiated chordal materials moving all over the piano very fast indeed. There is a great deal of that whereby the specific order of those notes is not really important, and where you have the impression of a lot of notes, all chosen from a particular chord which are moving up and down the piano in a particular shape. Well now, you can get an effect which is very comfortable with all that by having a lot of notes which are chosen at random, though within limits, and which move up and down the pitch range. In the same way, you get a similar kind of shape affect. The continuation of the random procedures can amount to a different sense where one is much less aware of randomization—or maybe where the randomization is much more subtle, having a preoccupation with much longer events. In the early pieces, I found myself becoming very naughty indeed, simply because long notes had a tendency to sound dry and dull, and so I spent a considerable amount of effort designing computer instruments. Remind me to come back and talk about the computer instruments and such things, which I keep mentioning. I designed a number of instruments which were capable of producing sustained tones, but sustained tones which had continuous variation of some nature or other within them.

This involves such things as vibrato, though sometimes too rapid or too slow to be perceived as vibrato. Such things are continually changing in timbre, where the timbre would go through a sort of notation while changing its quality according to some kind of a system. These situations acted like filters whose overtone relationships would change within a

given sound complex—chords in which certain elements would change and others would remain constant. These complexes moved very slowly, their pitches changing slowly but which don't remain stationary while they moved up and down as glissandi. And often complexes of sounds would move in glissandi which you would hear as a complex, but in which the elements would gradually change in place within the duration. In short, there was a pattern where chords involved a gradual preoccupation with longer events which have internal variation and change to maintain interest. But there was also a concern with setting up synthetic tones whose components were non-harmonic. Now, one thing the computer can do with great ease is to produce what we call a Fourier series, that is to say, numbers which are in harmonic relations to each other.¹⁸² One can set up a Fourier synthesis by which you synthesize tone qualities based on the relative strength of the overtones and where you can have as many overtones as you choose.

I developed many things in the use the of Fourier syntheses, some of them very subtle, some of them very complicated. But I also was concerned with producing sounds where the components are non-harmonic in their relationship, that is, where the frequencies involved were not integral multiples of one another. And so there are “clangs” or blocks of sound, and there are timbres that are best compared to the kind of timbres you get with metal plates, cymbals, bells, and other such

¹⁸² In [mathematics](#) a Fourier series is a [periodic function](#) composed of harmonically related “[sinusoids](#)” that display a smooth periodic oscillation of notes.

things. Now, it doesn't necessarily mean these things necessarily will sound bell-like, because a good part of the bell sound is the pattern of attack and decay pattern. That is to say, they made a very sharp metallic sound of attack, involving a very heavy concentrations of high-end harmonics which die out rapidly and leave you with the hum tone. Later on I developed other ways of doing these things. But by using non-harmonic relationships in synthesizing, one again gets a tremendous variety of interesting sound qualities, and I was experimenting these as well.

The final thing from which these pieces get their names was simply a conceit, if you like. All through my many years of teaching useful theory, it was always a bit frustrating that the number system we use for music is not in fact decimal, that is, groups of twelve notes per octave. The fact is that if you superimpose two intervals, you superimpose five and four. And the resultant interval is eight, an octave, whereas five plus four equals nine. You are not actually adding because one number is actually repeated when you superimpose two intervals—indeed, there are some anomalies in the number system we use in musical theory. It just occurred to me that it would be amusing to experiment with the decimal system for producing musical sounds. And so, I set myself up a predetermined pitch set, using it in both of these pieces to divide the octave by ten. Obviously, this is not going to conform very well with the familiar twelve. And this has many serious implications, chiefly because it doesn't necessarily sound unfamiliar. Some parts of it sound out of tune,

and others don't. It depends a little bit on how much we depend on serious harmonic relationships in our thinking.

But one or two consequences are of importance. That is to say that by thinking harmonically in terms of any other pitch set than ones in twelve, a system which becomes a very approximate and very rough sort of thinking process. It's all very well to talk about triads and about dissonances and consonances, and about resolutions and so on. These things we understand quite well when we use twelve tones for an octave in the conventional pitch set. But now, what about the harmonic relations where you have intervals a little larger than a half step, and you don't get any pure fifths or any pure thirds, and the intervals that you get are all quite different. So now what happens? You see, there is no way here by which you can apply the rules of conventional harmony, or whatever. And still, there are going to be relations of vertical simultaneity which are going to have harmonic significance. And what do you do with these? Now, this becomes a very tough and serious problem, and part of my thinking was developing along those lines. Well, the piece built on the idea of triple decima was submitted for a computer conference, and I won a prize for it. Here someone was given a prize for an outstanding piece of computer music! The amazing thing about that is that there were enough pieces of computer music being written for anybody to get a prize or for there to be a competition.

Berman: Didn't you say that you also gave the paper in London?

Strang: No. That was something else again. The discussion of cybernetic serendipity was an affair which was put on in London in which all kinds of computer art were brought together for the first time. And I don't remember whether any prize was involved there. The prize I'm talking about was at a computer conference. If I haven't given you the program yet, I will find it for you—I think it was in 1969 that it occurred. Now from '69 on, the work I did was all at UCLA, and by that time, we had a new version of a program which was very much more efficient and much faster. In fact, we developed the fastest computer music synthesis programming anywhere, either in 1972 or '73. And we rewrote the program many times. I developed many new things from these three pieces developed, some of them have titles—numbers 8, 9 and 10 [*Composition* 8, 9, and 10], they're ones I'm talking about.

These pieces used a series of computer instruments and are mainly concerned with other kinds of problems which have to do with what you might call “continuous sound complexes” that are subject to continuous internal change, with long bodies of very dense, blanketed sound. The image I like to use in thinking of them is that it's like a fog, involving light penetrating through that fog with colors and shapes that are constantly shifting, even though you may have what seems to be continuous in emanation. It's never actually the same because the densities and the degrees of penetration are changing. particularly *Atmosonus* [1973], which is one of the longest computer pieces, really a study in long, sustained, interacting, continuously shifting sonorities. And

these sonorities are in some cases unbelievably complex, so complex that they can hardly be conceived of in any other terms than computer.

Now, I threatened to talk about computer instruments. One must realize that in dealing with computers, you are responsible for everything, that is, both the conception of the sound and its realization and its manipulation. Everything that can possibly happen to sound you become responsible for, and you cannot simply specify every detail of everything that you want. So, what you have to do is to set up computer sub-routines which will handle a lot of these things for you. One of the convenient computer sub-routines that Max Mathews was building is simply a concept which produces computer processing comparable to the processing of what an instrument applies for the sound. When a composer writes a solo for clarinet, he is specifying particular wave forms, particular limits and dynamics, particular methods of articulation, and so on and so forth. And he doesn't have to specify that sound any more precisely. If one had then the equivalent of a clarinet for the computer—which is a very easy thing to provide—then you could simply specify the instrument name or number and have the sound process it so that it will come out with a particular timbre, a particular sound quality, or particular types of attack and decay, according to particular limits, and so on and so forth. And that's exactly what happens. Only you have to construct your own instruments. It's perfectly possible to have, let us say, a computer clarinet. You have to learn how to how to do it and you have to specify the procedure and then from there forever after you can simply call on that subroutine when you want clarinet sounds.

But what you actually do is to use certain pre-programmed elements which are called “unit generators.” And certain stored functions or “wave-forms” arrange that the computer will automatically call them up and process the numbers you put in whenever you specify the number dictating such an instrument. Say I choose instrument number 6. If I put in a certain column on my IBM card number 6, then the computer is automatically going to route the rest of the numbers through a complicated computer subroutine which processes it as if it were being played by an instrument. Any resemblance between these computer instruments and acoustical instruments is optional. And so I found myself developing computer instruments in some cases that were extremely simple, and in other cases extremely complex, a process that would do an incredible amount of processing. The instrument number 6 of these computer pieces [*Composition 6*, 1969] involves a device for setting up very dense, very involved combinations of sounds made up of fundamentals and overtones. But such complexes and the relations between the individual complexes need not be harmonic. One can specify twenty overtones for each of five different complexes, and then you can set these up in such a way that none of the overtones has any relation to the overtones of the other complexes.

About the time you get through, you can get something very comparable to a synthetic noise because you have so many different pitches being produced simultaneously. But you can also get very interesting effects because under some conditions with these various complexes the overtones will in some cases reinforce or in other cases

cancel it, producing a tremendous variety of different pitches of different results depending on what the fundamental pitches are that you feed in. Thus the quality can then be made to be different for every basic pitch, or every audible pitch, to the listener. But each one may have a different sound because of the way in which the overtones of these various complexes reinforce or cancel one another. And so you approximate what you get with a live instrument. Literally, there is a different wave form for every pitch which that produces. And then I have this thing set up in such a way that the relationships among these components can be made to vary as if there were a vibrato involved, so that they are constantly changing in relation to each other and some other things in this fashion. Now, in other words, a computer instrument may be something which does almost exactly what a conventional instrument does, or it may be a device for extremely elaborate and complicated processing whereby the composer feeds in a very simple instruction. The computer can then produce an almost unbelievable variety of results, simply because of the interaction of the processing which goes on in this sub-routine.

Another thing which was of interest is what you might call the “composing subroutine.” That is to say, a composer never uses an absolutely unrelated batch of materials, and there is always going to be something that you could use over and over again. The simplest example of this situation, for example, would be the fugue, where you have a particular subject, some given element, which is used over and over again consistently, from which you build up the whole piece. Another example of such a systematic thing is the twelve-tone series. A twelve-

tone series involves using certain pitches in certain relationships of succession and then manipulation of these in various ways in which the simplest are the inversion retrograde, retrograde inversion, and then of course, various methods of fragmentation, reconstitution, and transposition and the like. So, one of the things that I developed in this period was a series of composing subroutines, which would allow the composer to store a given type of material. Again, let's use the fugue as an example. Suppose you store a few things. Alright. now, once that is stored then you can by a very simple method cause the computer to process this to make all changes that you would normally expect to take place in a fugue. For instance, you can transpose it, and by simply providing a single instruction this will be transposed up or down by whatever interval you like. You can provide augmentation or diminution. You can double or halve the durations, or, of course, you can multiply them by any figure. It doesn't have to be only simple things this notation produces. You can, for instance, augment it by 1.23 [percent], or what have you. In the same way the transpositions don't have to be up in the fifth or down to the fourth. They can be either within some predetermined pitch set or can be arbitrary. There's one element in it which provides for inversion, and these inversions can be either proportional by which the intervals are the same but inverted, so that a fifth up becomes a fifth down, and so on, which is what we normally think of as being an inversion. But that's only a mathematical convention.

Just for fun, I stuck in an arithmetical inversion, which meant that the amount by which a frequency is changed was fixed so that, for

instance, you go up a major third and this would give you a particular frequency change. But if you were going down by the same number this would be a larger interval. So what that produces is an inversion of shape but in which the intervals are all skewed in a particular way. Well, this can be done in many different ways. An arithmetic inversion is one interesting way of producing a change of direction where the shape remains essentially the same but the scope shifts. That is, the higher you go the closer together it gets, and the lower you go the farther high the intervals get. Things like this, you see. This particular device then permits us to manipulate given material in much the same way that a composer would if you were applying the same procedures in a fugue.

I actually have a fugue here. *Composition 8* [1973] is a prelude and fugue among a few examples which use this particular routine as a device, and which utilizes them in a sort of school-fugue form through augmentations, diminutions, inversions, and transpositions. It uses a nineteen-tone tempered pitch set similar to what is used in all three of these pieces, and this is one of the few nineteen, rather than twelve-tone designs. And it's built to straddle all the usual fugal devices, and yet the instructions which I had to give the computer were for each repetition of the fugue theme on an IBM card, and told the computer what kind of manipulations to apply to the stored material. Now, these are overlapping on each other and interlocking with one another, and so on. That makes no difference; they are all operating on the same basic material which is starting the computer, and the starting points overlap and interlock as they clash with one another in all sorts of ways. That

makes no difference, you see, because the computer operates simply in terms of a particular starting-point, and once it gets started it carries it all out and then the computer does the whole editing process. It isn't a question of just making these things, since it then locates the parts in a second pass in the program which takes the material that it has just read from the input cards and sets it all up in terms of simultaneities so that when you come to the actual output all the things which are going on in the given sample are generated and are added up. The sample that results is the sum of all the things that are happening at that particular sample point. So you can write your piece as if it's contrapuntal, you can write it in terms of independent parts, and you can enter it as such. When the computer gets through taking all of these things and arranging them very precisely, everything occurs at exactly the right time or in relation to everything else. In this case it makes a very simple composing device. It's also a composing routine in the sense that the composer decides very precisely everything what is to happen, but he only has to give one instruction to the computer, and the computer will then work out all the successive events and put them where they belong in relation to everything else which is going on, no matter how complex it all may be. Well, there's one example of a composing routine.

And there were quite a lot of things like this which were worked out during this period. Perhaps the most interesting thing about some of this which nobody hearing the pieces is going to be aware of is that the pieces were tremendously involved and tremendously interesting from a technical standpoint. But, of course, in the last analysis nobody gives a

hoot about the technical devices that one may have used. The only thing that really counts the long run, is what it seems like to some guy who's exposed to the sound. And so, one of the great hazards for any composer always has been—particularly in this age with particular kinds of technology—is that the composer gets so interested in the problem of what he is doing and in the possibilities of it, that he forgets, and in the last analysis nobody cares a hoot. And so, it's not enough to make a fugue unless you enjoy listening to it.

For me, it was fascinating to do this for you. I don't like it very much, but it was a fascinating technical problem. This is one of these pieces which I would consider as a technical exercise. Some of the other pieces I like as music, this particular one, for example. Well, anybody is entitled to listen to it but, heading back to a very fundamental point of view, a composer is responsible primarily for putting things together, and to compose means to put things together. It's perfectly possible for a person who is composing to get so fascinated by the process of putting things together that he loses track of the communicating element. Or that he has a set of values he puts much more store in by all of the complicated processes he went through achieving it. Or he really doesn't, and then it all comes back to the basic musical point of view. I have always tried to think of all of these things, however complicated, as being basically musical problems and basically one of communication.

I wouldn't go so far as to say that I had succeeded. This is something that somebody else has to decide. But at least I tried not to get so snowed under by the technical complications that they become

merely technical studies. Now, the other side of that is that my actual musical output in this period has not been very great. I've probably done 30, 35, maybe 40 minutes of music over a period of ten, twelve years, which is not very much. But it's of some interest to point out that when you are doing this kind of thing you spend an enormous amount of time finding out what is possible, finding out how to do it. You inevitably do a great deal of experimenting, of testing, of trying, of perfecting. And all of these studies go down the drain. And, my God, if I had all the tape that was produced from these, I would reach from here to there. But most of it was simply in terms of experiments in process, and most of it was thrown in the wastebasket where it really belongs because a lot of things don't work or don't work well, or you don't yet know how to use them. I would say perhaps that in the period I've been working with computers a fair average figure would be ninety-eight percent of the time was in inventing the instruments, preparing the subroutines, testing the waveforms and the sound quality.

Experimenting with frameworks involves working out all the preliminary elements which go into it. That involved setting up and building my instruments, setting up all of the parameters and all the limitations which I chose to accept and all of the possibilities which I wanted to exploit. A full ninety-eight percent of the time and effort goes into that. Once one has set things up to composing, the process becomes extraordinarily rapid and easy. It becomes possible to translate the instructions for the computer into the necessary terms very, very fast. In many of these cases, especially the early ones, I worked by making a

graphic score. I couldn't use conventional paper because of the big systems involve. So I simply used conventional graph paper, and you've seen some of these. I blocked these things out in a way where I could see the process that shaped the character or the quality of the piece. And this helped me in keeping in mind the pieces as a whole and in organizing my thought in order to make up the actual computer instruction. And so I have such graphic scores for everything from [*Composition*] *Number 3* to *Number 7*. But they have enough detail in them so that if for instance I were to lose the computer programming and wanted to look at it again, I could reconstruct the computer program for the instructions from the graphic score. But then when you get to situations like the last three pieces a graphic score again becomes impossible because there's no way of representing on paper the internal changes which are going on in these elaborate steps in a set of constantly changing complexes.

So how do you describe on paper, visually, the subtle changes which are going on in a fog bank? Over a period of time you would be challenged to represent this. It's impossible to represent it in a graphics card. And how do you represent or how should you represent a computer fugue which is carried out by means of composing programs such as the one I discussed? Well, you can of course write out every note, but how do you write out every note in the nine-tone tempered scale? Actually, in those cases I reduced this to a simple line diagram where a straight line represented each entry, home field, along with some notations alongside which represented the types of instructions for manipulation of the transpositions and the changes in them, and so on. In this case the only

visual element I have is a series of nine diagrams which show the temporal relations among them and the relative lengths of the entries, along with the detail within each entry. Among other things, there is a tremendous problem of notation, which then makes it very complicated to decide what sort of crutch, such as this, one needs for one's own work. But the interesting thing here—and what relates to the point from which I took off on these comments—is the question of utilization of time.

In each of these cases the preparation of graphic cards and the writing out—or the punching out—of the instruction cards went extremely fast. There isn't any of these pieces in which the composition and the submission to the computer took longer than, say, two weeks maximum. And in the case of *Atmosonos* [1973], a piece of 13 or 14 minutes, the number of events is simply astronomical, where this would be the equivalent of an orchestral score that would have 58 staves and of which there would be 500 pages. And it took me two weeks to translate this from its conception into computer instructions and then into the computer runs. Well, by that time we were pretty efficient, and I think probably the actual final runs on *Atmosonos* for thirteen minutes of music must have taken less than an hour of computer time.

It's interesting to observe here that once one has done all the preliminary work it becomes an extraordinarily easy and rapid kind of medium. If I had tried to write out and to get performed a complex piece comparable to *Atmosonos* it would have taken me years to write the score, and it would have taken more years to prepare the parts. The chances of my ever being able to get together an ensemble big enough to

perform it would be infinitesimal—no conductor could ever be persuaded to do it. In short, this kind of thing would be perfectly impossible to do by conventional means. The upshot of the whole thing is that for the kind of thing which utilizes the capacities, the special qualities in media, it becomes possible to do things with great ease and great efficiency. Over a period of about ten years my own development was such that from an absolute ignoramus knowing nothing about computers I got to the point where this became an incredibly sharp, effective, rapid and economical tool. How on earth could I get a final sound version of a piece like that in real life by other means? The answer is very simple—this piece could never have been realized by any other means.

And so, it comes back the same old thing, that there is always interaction between the composer and his medium. It seems to me that it becomes an obligation of the artist not to merely go on doing the same old thing, but to try to find ways of making use of the strength of the idiom. It's the same old story—you hear people saying it's not idiomatic for the instrument; get another one they say, damn it, this is written for flute, or it would've been really good for violin, and string players particularly say it just doesn't lie right. Well, it's the same thing with any medium. You see, if you do the thing that suits the medium then the results are always much, much better. The business of trying to force a computer to produce music like a piano or an organ or an analog synthesizer seems to be just nonsense. If you are going to work with the computer, for God's sake, find out what the computer can do best and

then exploit it. Well, I don't know. I think probably we are pretty close to the end of this tape, aren't we?

Berman: Yes.

Strang: Yes. Any questions or anything else....?